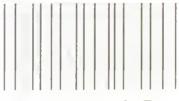


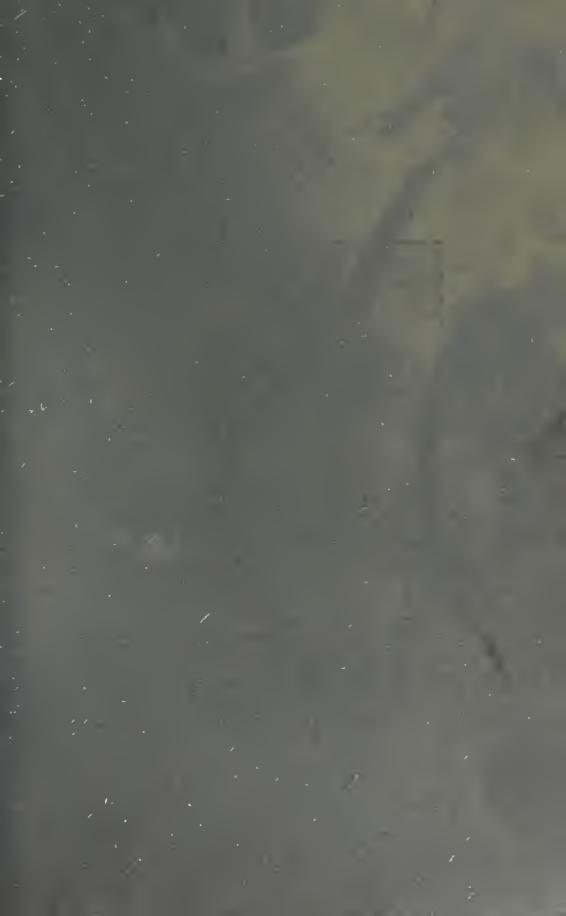


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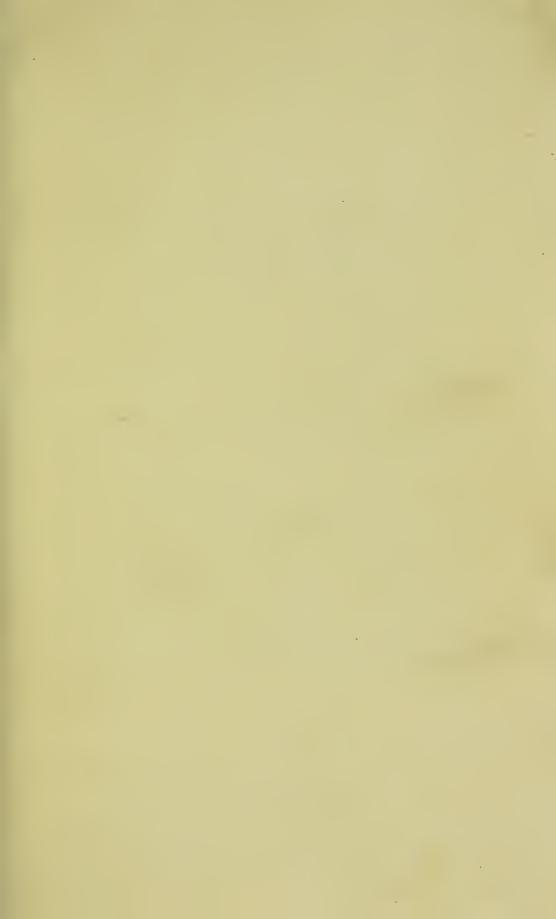
To D. W. Termant Gairdner, Glasgow.

From Professor and Mrs Attfield,

Watford, Herts.

It is a year to-day since our Son left England for Egypt. At the urgent request of many of his friends, and solely for private circulation, we have printed—from the original type-written sheets sent by him, weekly, to three circles in England—a certain number of copies of just this first year's Private Journal. Please accept one. A single line in acknowledgment of its receipt will suffice, addressed to us as above. If, after looking it through, you have found any matter respecting which you may feel disposed to write direct to him-well, 'a letter from old England,' he says, 'is even brighter than rays of the East.' His address is simply, Dr. D. H. Attfield, Suez. We have included a map (drawn by his sister), his portrait (given by our 'Acme' friends), have inserted headings to the paragraphs, and have added a title-page and a table of contents: all else is his own.

J. A. and M. A.





DONALD HARVEY ATTFIELD 1894





A PRIVATE JOURNAL

IN

EGYPT

FROM MAY 1894 TO MAY 1895

BY

DR D. HARVEY ATTFIELD, M.A. CANTAB.

QUARANTINE MEDICAL OFFICER AT SUEZ AND MOSES' WELLS SUB-DIRECTOR OF THE MECCA PHIGRIM ENCAMPMENT AT EL TOR

APPENDICES

I.—WYOMING IN 1891 II.—MUNICH IN 1892

'Now, sirrah, you do wish yourself in Egypt?'

'I will to Egypt; i' th' east my pleasure lies'

Ant. and Cleo., act ii. scene 3

Printed by

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1895



PREFACE

Tuesday, January 1, 1895.—Yesterday completed my first eight months in Egypt. I have indeed had a varied experience of places, men, and manners in a comparatively short time, and the experience has been at once highly instructive and extremely interesting.

I am so glad to notice, too, that the narration of that experience has proved of interest to what I find to be the many readers of the three copies of my Journal which one operation of my type-writing machine has enabled me to send to England weekly. The evidence of that interest is the anxiety which already thirty or forty of my friends evince to possess duplicates of the diary—including Dr. Mackie, C.M.G., of our Sanitary Council at Alexandria, who saw the home-copy when he was at Watford. Moreover, the Mater and Pater have offered to print and distribute the copies. Respecting all this I can only say that I feel highly complimented. Assuming that

strangers who may see the diary will regard it as compiled for the consideration of those alone who know me,¹ and will read only the paragraphs of general interest—commencing, say, at 'June 7'—that the type and 'get-up' be modest, and that the issue be private, then I most willingly, nay gladly, fall in with my friends' wishes and my too fond parents' offer. All readers will please understand that my Journal only records the diversions of a young physician, chit-chat for friends, and the results of general rather than professional observation of men and things.

Monday, April 15, 1895.—I concur in the suggestion that the book should contain the record of one, only one, complete year in Egypt.

D. H. A.

¹ Robert Louis Stevenson's remark respecting 'every book' is especially true of a journal, namely, that it 'is, in an intimate sense, a circular letter to the friends of him who writes it. They alone take his meaning; they find private messages, assurances of love, and expressions of gratitude, dropped for them in every corner.'—J. A. and M. A.

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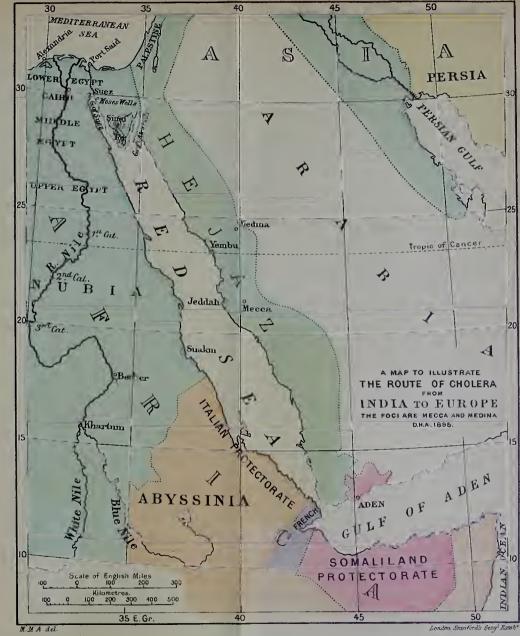
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A PRIVATE JOURNAL

INTRODUCTION

Watford, England, Sunday, May 6, 1894.

To-morrow I start for Egypt to take the appointment, under the Government of that country, of, primarily, Sanitary and Quarantine Medical Officer at the Port of Suez and at the adjacent Sanatorium of Moses' Wells. My duties at Suez will be to board vessels that are about to enter the Suez Canal; and, if the ship's surgeon cannot show a clean bill of health as regards zymotic or infectious disease, to place the whole ship in quarantine, or to order the removal of individual cases to the Sanatorium. An Austrian and a Frenchman have also been appointed. Each of us, in turn, is to be on duty for twenty-four hours. and off duty for forty-eight hours.

Suez being on the Bay of the same name, the northernmost portion of the Gulf, and on the western side of the Bay, Moses' Wells is on the eastern side, some six miles down, and some two miles or less inland. This quiet palm-shaded desert-oasis of Moses' Wells is the traditional spot to which the Israelites 'passed through the Red Sea as by dry land, which

the Egyptians essaying to do were drowned.' The gulf is there only five miles wide. It is understood that the chief professional cases will be pilgrim passengers returning from the holy cities Mecca and Medina, half-way down the Red Sea on the eastern or Asian side, close on one thousand miles south of Suez, and seventy and one hundred and twenty miles inland respectively. Secondarily, I may do similar but only periodical duty at Tor, a coast village at the foot of Mount Sinai, about one hundred and forty miles below Suez, but still seventy or eighty miles above the junction of the Gulf of Suez with the Red Sea. Pilgrims are not now to be allowed to land anywhere in Egypt until they have had a sanitary overhauling at Tor Camp during the more special, Koran-appointed, pilgrimage months, about June and July, and at Suez, during the rest of the year. At Tor one will have to deal with several thousands of pilgrims at a time.

I may say at once that these are the beginnings of a great internationally organised attempt to stamp out cholera in its breeding grounds of India, Persia, and the notorious foci Mecca and Medina. (See the illustrative cholera-route map facing page x.) Egypt is making the start—all honour to her—and I have the great satisfaction of being one of the professional pioneers in this warfare of health against disease. It is exactly the work of 'Public Health' or 'State Medicine' for which (with liberal and loving aid) I have been fitting myself for the past nine and a half years, under honoured teachers, at Cambridge, St. Bartholomew's, Würzburg, Munich, and King's College. I begin public life at the age and at the

remuneration my father started with in 1862; I want no more auspicious precedent, and feel happy, confident, and contented. The more contented and reliant perhaps, because neither outside personal influence, nor inside favouritism, could affect my election. The requirements of the Egyptian Sanitary and Quarantine Board were advertised in the medical journals of England, France, and Germany; applications and testimonials were to be sent to and considered by the Board at Alexandria. Not ordinary medical qualifications alone, but special bacteriological and chemical attainments were required, experience in dealing broadly with epidemics such as cholera, and as much all-round administrative and linguistic skill, as well as sound health and physique, as could be conjoined.

Here, apparently, was an opening into the very career for which I had been studying and working. Clearly, too, opportunities would be at disposal for increasing whatever power of research, and therefore of usefulness to others, one might already possess. I applied, adducing testimony from my three universities of (a) Cambridge (various diplomas, including one in public health); (b) Würzburg (through Professor Dr. Medicus, Director of the Technological Institute of the Royal University); and (c) Munich (through Professor Dr. Max von Pettenkofer, President of the Hygienic Institute, and Professor Dr. Emmerich, Director of the Bacteriological Laboratory of the Royal Ludwig-Maximilian University); also (d) from St. Bartholomew's Hospital and College, London, my chief medical school (through Sir William Savory,

Bart., F.R.S., Surgeon Extraordinary to Her Majesty the Queen, and Dr. Thorne-Thorne, C.B., F.R.S., Chief Medical Officer to the Local Government Board): from (e) King's College (through Professor Smith Director of the State Medicine Laboratories where I had been demonstrator; and Professor Crookshank. Director of the Bacteriological Laboratories); and, lastly, (f) from Dr. Thursfield, the Medical Officer of Health for twenty-seven sanitary authorities in Shropshire and adjacent counties, whose deputy I had been and under whom I had investigated and traced out a large number of epidemic outbreaks. As regards medical pharmacy and chemistry, I was able, for several years of tuition, to cite (g) my father, Professor Attfield, F.R.S., editor of the 'British Pharmacopæia' for the Medical Council, and Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain. I was selected, together with a German and a French colleague, out of, as I afterwards gathered, many scores of candidates.

I have devoted the substantial fee I earned for my professional work at the Soda Lakes of Wyoming, United States, at the foot of the Rocky Mountains, in 1891 [see page 241], to my outfit and other expenses; so I start with a fair amount of the pleasant as well as proper British feeling of independence.

At Suez we three medical officers are to have a steam launch at our disposal, an office, and probably, after a time, a house to ourselves, with appropriate suites of rooms. In all other respects we are, at present, to fend for ourselves. We are to 'report' ourselves at Alexandria on Tuesday, May 15. When

all preliminaries have been settled there, we go on to our chief station and headquarters at Suez. Which of us will be selected for the Pilgrim Encampment work at Tor I know not. I am extremely anxious to go there myself, for, although the labour will be greater and the social advantages fewer than at Suez, the professional and general experience to be had at Tor will be invaluable, especially in an epidemic year. Besides, the Suez work can be taken up at any time, while the Tor work is only periodic—a couple of months or so every year during the pilgrimage season.

This journal, gladly undertaken at the suggestion of my father, will be written with my 'Densmore' typewriter, four copies at a time, by the usual singlestroke operation; one for home, one for relatives on the maternal side, one for those on the paternal, and one to be retained for reference. It will be run off in trains, steamboats, carriages; even on camelback, or in the quietude of hotels or private quarters. It will be written up whenever there is anything to tell that will probably interest my private friends. Time, also, will thus be economised, for some short private letters and post-cards, with perhaps an occasional cipher 'Unicode' telegram, will be all that will be needed in addition to the journal. How much of detail my readers may desire I cannot estimate satisfactorily at present, but I will do my best to avoid being either dull or tedious.

1894.

ENGLAND TO ITALY.

Monday, May 7.—At 8.50 parted, sadly, with my good mother and two sisters, at the old home, 'Ashlands,' Watford, England. Even the father looked like, and I felt like, turning on 'the founts of emotion,' but all behaved well. Many friends 'saw me off' from the station and still nearer home, and from Charing Cross at 11, the pater's hat being the last to wave adieu. One of the largest of the L.C. & D.R. steamers gave me a very comfortable trip to Calais, without a symptom of nausea. The Customs being passed without trouble, I found my 'wagon-lit,' and soon was en route for Bâle. company a pleasant fellow named Earle appeared. We dined together at Châlons-sur-Marne station; then, rejoining the train, the carriage beds were made, each of us having a separate compartment. Slept, dreaming confusedly of flying, till 4.30, when I got up to see some very pretty country, and was well repaid.

Tuesday, May 8.—Soon after 6 a.m. reached Bâle. After breakfast started for Lucerne and the St. Gotthard. The clouds were low, but as the day grew older and warmer they rose, and some lovely views were had that my sisters and I had missed through fog some two years ago. Dined at Göschenen, then started into the great tunnel through the Alps.

On reaching the south end the sun was shining brilliantly, and there was scarcely a cloud to be seen. The run down into Italy was doubly interesting, for although we had travelled over the same ground, as I have said, nearly two years back, it was in the opposite direction. The general views appeared familiar, but the details seemed new. Milan was reached at 5.30; a long run of $32\frac{1}{2}$ hours straight on end, yet this, the first stage of my journey, had not proved unduly tiring.

MILAN.

The Hôtel de Milan afforded a big bath and a good table d'hôte. There were people of all nations at dinner, as Milan was en fête on the occasion of the visit of the King and Queen to attend the Exhibition. A funny little Englishman who had sat opposite at dinner went out with me to see the illuminations. At half-past nine the cathedral was lit up with enormous quantities of coloured fires, the result being one of the most beautiful sights of its kind that could be witnessed. The actual fires were so well hidden that the eye was treated to their full rich light without their direct glare. There were three changes of colourwhite, red, and green, the Italian national colours. The effect produced by the red glow was particularly striking. It brought out every little detail of the exquisite tracery and every figure and pinnacle of this most elaborately beautiful pile. The lurid red was not quite the tint associated with heavenly places, but as a curé de campagne once said to my father respecting such fireworks, 'it pleases the people, and what more would you have?' Slept a single sleep of the physically tired for eleven consecutive hours.

Wednesday, May 9.—Much refreshed; went for a stroll and again visited the cathedral, and deepened the impressions made on me when travelling with my two sisters in 1892. At 1.30 a.m. left for Bologna. The pater's advice to travel 'first class' was good, for the other carriages are thronged, and I find that one would have had to risk the proximity of people none too savoury in appearance or odour. As far as Bologna, where dinner was served during an hour's stop, had but one companion, and he could only speak Italian, so conversation was not much in evidence. Soon afterwards made up the best bed I could with rug, &c., and slept nearly all night.

Brindisi.

Thursday, May 10.—At 8 a.m. reached Bari. Here came in an Italian who spoke good German. He was a successful olive-grower, and told his experience in a very interesting manner. On each side of the railway all down the Adriatic noticed extensive tracts of ground covered with olive-trees. At 11 a.m. we reached Brindisi. At once sent home an 'Unicode' cipher telegram, as agreed. Shall be able to join my ship to-night, which, as we sail somewhat early to-morrow morning, is a great advantage.

The hotel here, the International, is about the only sound-looking building in the town. The quay is very fine, and big ocean steamers can come along-

side. Am type-writing at the window of the hotel which looks out on to the quay, and, indeed, I can see my ship, the *Gottardo*, and almost look into the cabin windows. Fortunately, I have obtained a deck stateroom whence I can, at least, see what there may be to see—an advantage in the absence of companions, for there are only to be three passengers besides myself. Our steamer looks rather small beside a big P. & O. boat, the *Australia*, which has just come in and is mooring alongside the quay.

Now aboard, having had dinner at the hotel. At table there were a great many people who had just left the Australia. Talking with one of them, found that an old hospital chum was on board—Bernard Green—but I could not catch sight of him. The three days' trip to Alexandria does not promise to be very cheerful, for the weather is dull and at present I am the only English-speaking person on board. However, the Gottardo is the one vessel that enables me to report myself at Alexandria on the day ordered. My state-room is very good, near the centre of the ship, and has access to an outside deck cabin opening almost on to the saloon.

Most of to-day I have spent wandering about Brindisi, a dirty and tumbledown place. The Italian hotels stopped at during the last two days impose high charges. Thus, $1\frac{3}{4}$ francs (say 1s. 5d.) for a bottle of soda-water seems excessive, especially when followed by 5 francs for use of a bedroom for two or three hours. Higher prices than those of a town hotel would not be unreasonable, not so an ordinary charge multiplied several times.

CROSSING THE MEDITERRANEAN.

Friday, May 11.—On waking up this lovely morning on board the Gottardo about 7.30, after undisturbed rest, found we were already under weight for the third stage of my trip out to Egypt; so after a rapid toilette I got out my camera and hurried on deck to get a parting view of Brindisi, which looked most picturesque, if dirty, in the bright morning sun. Then a cup of tea and a roll were acceptable, for the ship's breakfast-hour is not until 9.30.

Breakfast, so called, was a great success; it consisted of, first, soup, then hors-d'œuvre, followed by fish, beef-steak, cheese, dessert and coffee, all well cooked and served. As companions at the meal had the other two saloon passengers—an Englishman named Hardinge and a Frenchman called De la Port—and the ship's doctor. Hardinge seems a good fellow. Fortunately, he can speak Italian and is good enough to act as interpreter for me. He is on the way to Zanzibar, where he holds some Government berth.

Lunch consisted of cold meat and salad, with cheese, and a light sort of Chianti to drink. For dinner, at six o'clock, they gave us a good menu of some half-dozen different dishes, as well cooked and served as at breakfast. Chianti and a glass of fair Marsala, followed by a cup of rich, bright, black coffee, formed the liquid portion of the repast. The ship's doctor fed with us, and a place was set for the captain. It is somewhat dismal dining in a big

saloon with four; however, it is less uncomfortable than having it filled, for there are places for eighty. There are four stewards, so the service is good. At nine o'clock they gave us a cup of tea. After a constitutional on deck I turned in, feeling quite ready for my, literally, little bed. Sea calm.

Saturday, May 12.—Woke up at eight, the sun shining brightly in through my cabin porthole. Going out on deck found we were in sight of land, which, a steward said, was one of the smaller Ionian islands—Zakyntho. Returning below, after a struggle with an attendant and Murray's Italian 'travel-talk,' managed to get an enjoyable bath; then tea and toast, followed by an excellent breakfast consisting, as yesterday, of several courses. The table is provided with as much Chianti as passengers care to drink, and of a quality that, with water, yields a refreshing beverage, but alone is rather rough. Abundance of fruit is afforded—oranges, apples, figs, dates, nuts, &c. The food is as good as that provided on American liners, and the cooking and service much better.

Spent the day in reading various blue-books, sandwiched with some lighter literature in the form of a novel called 'Marcella,' by Mrs. Humphry Ward, author of 'Robert Elsmere.' Am getting on with the Frenchman, having played him several games of écarté and one at dominoes; at the latter he beat me, but at écarté I won four games out of the seven. In the evening passed Crete. Unfortunately the clouds were low; hence the full beauty of its mountains could not be seen. Hardinge is rather retiring and

spends much of his time in his cabin. Apparently he has travelled a good deal, but seems unwilling to talk about what he has seen and done. The little Frenchman, on the other hand, is communicative, but our attempts at sustained conversation are amusing. Two or three pigeons and several linnets have taken up their abode on board and excite much interest among the sailors—and, for that matter, the passengers. The sailors cause amusement in their fruitless attempts to capture the birds. At present we have seen only two vessels, both sailing.

The ship is not at all well arranged for taking exercise, as it is broken up into three parts, with no communication on the upper decks, so one cannot get a very extended promenade. She is a Glasgowbuilt vessel and is only ten years old, and is well found in every respect. Of second-class passengers we have few; among them are several Albanians dressed in their quaint national costume. Yesterday I gave a little banjo entertainment on deck which greatly pleased and amused the various people on board, who, with the exception, perhaps, of Hardinge, had neither heard nor seen a banjo before. My typewriter, too, causes much curiosity on the part of the crew.

Sunday, May 13.—Little to recount. After a somewhat rough night, during which we rolled a good deal, the wind has gone down, and we have a most perfect day of bright sunshine with occasional light breezes to temper Sol's fierceness. The trip would have been very enjoyable with a little more of society. We have made a fairly quick passage so far, and

with luck we should be in Alexandria by daybreak to-morrow.

Hardinge has, at last, vouchsafed a good deal of useful information about Egypt, where he lived for two years. The sun being very favourable to-day for photography, I have taken several pictures of the ship and some of its company. With such brilliant light they ought to be successes. With these notes I enclose the menu of to-night's dinner, which was particularly good. The 'Florio e Rubattino' (vide menu), once rivals, now partners, form a great shipping firm. My hotel is to be the strongly recommended Hôtel Abbat.

NAVIGAZIONE GENERALE ITALIANA.

Società Riunite Florio e Rubattino. 'Gottardo,' il 13 Maggio, 1894.

PRANZO.

Pastina in brodo.
Antipasti.
Pesce al gratte.
Prosimittini di pollo guarniti.
Asparagi al burro.
Frittura mista con Tuscalata.
Gelato alla Varriglia.
Formaggi.

Frutta.
Caffè.

The whole voyage across the Mediterranean has been most refreshing and health-giving to me and my fellow-passengers, while the general attention to our comfort has been satisfactory.

ARRIVAL IN EGYPT.

Monday, May 14.—Alexandria is reached safely after a pleasant voyage. We were off the coast at 4 this morning, and disembarked at 6.30. I am sending home a 'Unicode' cipher telegram as agreed. Hardinge was kind enough to get all my baggage through the Customs without examination. After breakfast sallied out to find Dr. Mackie, the representative of Great Britain on the Egyptian Sanitary Board. He was very kind, and took me round to Mr. Miéville, C.M.G., the President of the Board, who was out, and then on to Sir Charles Cookson, the British Consul-General, who kindly asked me to luncheon en famille, and gave me much useful general information. After luncheon had an unofficial chat for a few minutes with Mr. Miéville. He is glad that I am here on the arranged date, the more so that my French and Austrian colleagues will be several days behind time, and states that the Board will probably show their appreciation by soon sending me to Tor, which Dr. Mackie says I must regard as a feather in my cap. This is at present all private, as I am to receive official instructions to-morrow; but I post these notes to-night in order to catch the early mail in the morning.

RECEPTION. FIRST WEEK.

Tuesday, May 15.—This morning had a long official interview with Mr. Miéville, the President of the Quarantine and Sanitary Board of Egypt, under

which I am to act. He imparted to me much valuable information. He evidently is an extremely capable Englishman, un homme d'affaires of the best type.

In the afternoon made a long round of official calls on the various delegates of the Board. To the few who could not speak English I only sent in cards; with the others had important personal interviews. Business over, drove up to the Exhibition, and met Mr. MunGavin (a friend of the Manor House Harfords, at home), who showed me round. He also took me to the Cercle Khedivial, of which I was afterwards made an honorary member during my stay here. It is quite the best club in Egypt, and MunGavin did much to promote my election. He also has introduced me to many nice people.

Having returned to the hotel and dressed, I went out to 'Bombay Castle,' Miéville's house, and had an excellent dinner. There were some twelve or fourteen present, all young people, and very lively. Among the party were the captain and first lieutenant of H.M.S. *Polyphemus* and a captain of Artillery. After dinner we went to quite a brilliant ball at Ramleh, a watering suburb five miles east from Alexandria.

Wednesday, May 16.—This morning was again spent at the office with Mr. Miéville, who, metaphorically, gave me valuable instruction as to the use of each of the ropes of the sanitary ship I shall have to manage. At present it is not decided when I go to Tor, for much has to be learnt here about the details and the procedure for my work generally. It will be a great professional advantage to me to go to Tor sooner rather than later, for Tor will offer more

opportunities of using medical, bacteriological, chemical, and mechanical powers than one could have at Suez, including more opportunities of devising and enforcing sanitary arrangements for the pilgrims returning from Mecca and Medina. We shall still then be many miles north of the Red Sea and its unpleasant heat zone. Creature comforts, too, cannot altogether be wanting where fine ships wait on one's efforts.

This afternoon Mr. MunGavin took me out to some pleasant people for tennis.

At night, after dinner, several of us went to a native music-hall. The music so called was questionable, and the heat most oppressive, so we did not stay long.

WORK AND PLAY.

Thursday, May 17.—This morning Mr. Miéville took me to the Lazaretto at Gabbarri, a suburb of Alexandria, where persons are put into quarantine. It is a very well fitted-up place, with many baths and disinfecting apparatus.

All the work of the day in Alexandria seems to be done between seven in the morning and midday; the shops then close until three.

In the later afternoon MunGavin had his dog-cart brought round, and we went for a delightful drive of some ten miles or so. The country is most beautiful. (Frand palm trees, and oleanders many feet high and in full flower, abound. Here and there are patches of Indian corn, alternating with groves of fig trees, the whole making a charming picture.

Friday, May 18.—After some work at the office connected with stores to be taken to Tor, Miéville took me down to the docks, and, boarding his gig, by the sturdy efforts of six Arab rowers we were soon alongside one of the French men-of-war, the Mediterranean squadron of which is lying here just now. We went on board to call on her captain. We were 'received' in great form by the officer on guard and conducted to the captain's cabin. He was most hospitable, and offered us a variety of drinks. Miéville and he spoke French entirely, so I had little opportunity of joining in the actual conversation. For, although I understand nearly everything said in that language, I shall have to work hard before I can myself be fluent.

I have begun the study of Arabic. It is frightfully difficult. They say one must first work at the language by listening before one can hope to do anything at reading or writing.

In the afternoon made calls, MunGavin kindly lending me his dog-cart. It was 'calling' under difficulties, as the groom could only speak Arabic, and I do not yet know my way about very well.

PUNCTUALITY.

Have spent some time at the German and Arabic hospitals of Alexandria, and have seen some interesting cases.

Neither the French nor Austrian colleague has arrived at present, so my mere punctuality is making an extra good impression. There is some rumour that the Frenchman, Delarue, is not coming at all.

Nothing definite is settled yet as to the time of departure for Tor.

Clearly Egypt will afford me excellent opportunities of maintaining my German, extending my French, and acquiring Arabic.

Have received an invitation to Sir Charles Cookson's dance next Thursday, on the occasion of the Queen's birthday. It is to be a very big 'function.'

Lunched with the Josephs, who are related to the Herts Gerard Morrison, at their house at Ramleh. Mrs. Joseph, Gerard's sister, hopes to sail to-morrow for England so as to be in time for the wedding of our Watford friend Evelyn Ray with Gerard.

At present I have not found the heat excessive. The fly and mosquito trouble also is somewhat exaggerated, though there are certainly large numbers of each, and no one despises net curtains at night.

Saturday, May 19.—Office work as usual this morning. I do not mind how soon I get into harness; still, every day here seems to give one a lift forward with the authorities, and so, doubtless, to increase one's chances of future advancement.

This afternoon with Miéville to the Sports Club, two or three miles from Alexandria, where I walked round a few holes at golf with him, and then watched a polo match. Then some tea, and afterwards to his house to dinner. Entertained most handsomely. After dinner we went to the Exhibition, and heard the Sims Reeves of Egypt in the person of one called Abdul. To my western ear the performance was by no means harmonious, but, judging by the cheers of the natives, it was something marvellous. After

the music we saw some very pretty illuminated fountains.

Sunday, May 20.—Spent to-day with Tom Farries' friends, the Allens, who have a fine house out at Ramleh. After luncheon and a short siesta we drove into Alexandria and went on board Allen's 'Dahabieh,' which is a very fine boat. He often spends a few weeks on board, taking shooting trips up the Nile. Went back and dined with him, and afterwards returned to my quarters.

RECEPTION. SECOND WEEK.

Monday and Tuesday, May 21 and 22.—Have examined more interesting and instructive cases at the German hospital with Dr. Mackie. Went for a sail in the harbour with a man named Bell, who is a captain in the coastguard service. We had one of the native boats and a crew of eight men. These native boats, with their huge lateen sails, spin through the water rapidly. They heel over, however, so much that it may be necessary to put all the crew on the gunwale to keep the boat from capsizing. After a most enjoyable sail we had an equally enjoyable swim. The water was quite warm. Dined with Mr. B. Smith, of the Eastern Telegraph Company, the gentleman mentioned in the letter my Uncle Smith kindly obtained for me to the E.T.C. Superintendent at Suez. He gave me an extremely interesting description of the mode of working telegraph lines.

Wednesday, May 23.—This morning went with Mr. Miéville to see the cattle quarantine station at a

place outside the town. All sheep and other animals coming in for food are subjected to an examination there by an expert before being allowed to be sold.

At night went to a church concert with the Miévilles. Mrs. Miéville, who was singing a part, has a very good voice. I have had some excellent tennis at the club. The courts are made of a sort of cement, the play, in consequence, being much faster than on our English grass courts; the light also is dazzling. However, in spite of these handicaps, as well as having a strange racquet, I have managed to play a pretty fair game.

Full Dress.

To-morrow is the Queen's birthday, and I have to visit the Consulate in official dress, i.e. 'tarboosh' and 'stambouleen,' which in English mean the red 'fez' headgear and a coat much like that of an English parson. These I was able to get readymade, and, after a little alteration, they fit me 'like a glove.'

Thursday, May 24.—At ten this morning, arrayed in the tarboosh, stambouleen, and black trousers, accompanied by Mr. Miéville in similar dress, but wearing his numerous orders, I went to pay my respects to Sir Charles Cookson at the Consulate. He received us in great state, dressed in what some humorous, if envious, ladies termed his 'coat of male,' a most gorgeously gold-laced uniform. All sorts and conditions of great men were there, calling to render due homage to the greatly respected representative of Her Majesty on Her Majesty's birthday.

Coffee and cigarettes were afterwards handed round, and then the guests took their departure.

In the afternoon MunGavin lent me his dog-cart and I drove Captain Bell out to a place called Sidi Gaber, where the colours were to be trooped in honour of the day. There is at this place a good paradeground, and the interesting ceremony was well carried out by some five hundred of the East Yorkshire Regiment. After the show there was an 'At Home' in the officers' quarters, where recherché refreshments were provided.

After dinner dressed and went to the Consul's ball. It was one of the best dances I was ever at. There were about three hundred persons present, amongst whom were many officers in full-dress uniform, both soldiers and sailors. I had delightful partners and greatly enjoyed the whole affair. Dancing did not end till three o'clock.

Friday, May 25.—Did not get down to the Board's offices so early as usual, for, besides being tired after the dance, a large packet of home letters and papers was sent up to me from the offices, to which they had been transferred from Suez. I was very glad to have them.

Had a bit of promising news to-day from President Miéville, who tells me he thinks he will be able to arrange that we new men shall have a month's salary to recoup ourselves for travelling expenses. This is a pleasant surprise, after the Vice-President's original letter to England, which stated that we were expected to pay our own travelling costs.

Saturday, May 26.—At the office this morning

find that my Austrian colleague, Blatteis, has arrived and at once been sent on to Suez. He has a bad leg, so it is possible I may have to take his work at Suez for a few days instead of going straight on to Tor.

To lunch and dinner at the Allens' and had some good tennis. There is no doubt about the excellence of the cooking and the elegance of the dining hereabouts. Alexandria and good feasting have long been associated:—

'AN ALEXANDRIAN FEAST.'

Pom. We'll feast each other ere we part; and let's Draw lots who shall begin.

Ant. That will I, Pompey.

Pom. No, Antony, take the lot: but, first Or last, your fine Egyptian cookery

Shall have the fame. I've heard that Julius Cæsar Grew fat with feasting there.

Antony and Cleopatra, act ii., scene vi.

Sunday, May 27.—In the afternoon went with the President to some bicycle races on a cement track, and saw some really good contests. Then out to the Allens' to supper.

RECEPTION. THIRD WEEK.

My second week of reception has been both satisfactory and complimentary, and my instructions most detailed. The whole work bids fair to be congenial.

EASTERN BRIGHTNESS.

My happiness would be complete if I could know that every one of my close friends in England will sooner or later see the glorious colouring and picturesqueness of this wonderful place in all its crystal clearness of atmosphere, and realise all its freshness and novelty and charm. Even Alexandria's Arab quarter, with all its dirt, is delightful.

The weather has, so far, not been unpleasant; decidedly warm, but not excessively hot: the air never unduly moist, and the bright and lovely sunshine beautifying everything.

Still in my usual excellent health.

WORK AND PLAY.

Monday, May 28.—This morning M. le Docteur Zachariadis presented himself at the office. He is the Director (I am only Sub-Director) of the Quarantine Encampment at Tor. We have been officially consulting on the whole subject. He seems a pleasant fellow, and although he can only speak a few words of English, we manage to get on together very well. To-day we considered lists of equipment for the camp. When one has to make arrangements to board, lodge, disinfect and provide all necessary hospital arrangements, &c., for assumed detachments of some 5,000 pilgrims at a time, it is not difficult to see that there are plenty of opportunities for expenditure of effort and exercise of forethought. Next Monday, June 4. is the probable day we leave here for Suez, en route for El Tor.

This afternoon had an enjoyable bath in the harbour. The water is quite warm, and where we bathe there is no danger whatever of sharks, which, hereabouts, are said to be somewhat 'snappish.' My

friend Bell, captain of one of the coastguard cruisers, gets some of his men to row us on board his schooner, and then we undress down below and dive over the side into deep water right away. The only difficulty is getting on board again, as the ship's ladder does not reach within two feet of the water. To those unaccustomed to climbing it would be somewhat difficult to get up that small distance of two feet.

Tuesday, May 29.—This morning was devoted to more consultations and arrangements for El Tor. Our office hours are from 8 to 1, the hour at which all work is practically over for the day in Alexandria, as I have already intimated. The shops are closed from 12 till 3, and most people then indulge in a siesta. Zachariadis came to luncheon with me. He certainly bids fair to be a genial colleague. In our general conversations we had several hearty laughs over our mutual Anglo-Franco verbal misunderstandings. I am to have a clever fellow who speaks all sorts of languages attached to me as my secretary at El Tor.

This afternoon had another enjoyable swim. Dined with Dr. Morrison, who is the Swedish delegate on the Quarantine Board. He gave me much general information respecting the service. Thus are work and play made equally agreeable in this three weeks of 'reception' in Alexandria.

Wednesday, May 30.—Had a fresh experience this morning, that of acting as a German interpreter between a certain Dr. Kobrynski, who is an Austrian in charge of some Bosnian pilgrims, and President Miéville, who knows but little German. Succeeded

fairly well, though it was by no means easy to carry in one's head all the long-winded Austrian said at one time. It is now fixed that I receive a month's pay as indemnity for travelling expenses.

In the afternoon the dog-cart enabled me to make some calls, and on returning to town went down to the harbour and again enjoyed a swim.

HOSPITALS.

Thursday, May 31.—After some time spent at the office over El Tor affairs, went with Zachariadis to the Arabic hospital and saw some highly interesting patients. We then drove out to the Greek hospital, which is presided over by a man named Zancarol, a delegate at the Conseil, who talks English very well. He showed us some instructive 'cases' and one interesting 'operation.' All the sisters are English. It was quite refreshing to speak with them after struggling with French and talking German at the other hospitals. Zachariadis took me back to luncheon at his hotel, which is not so large as Abbat's, but perhaps more comfortable; moreover, it is nearer the sea, and consequently much cooler.

A REGATTA.

Afterwards went down to the harbour to a sailing race, in which every one who has called on the British man-of-war stationed here is at liberty to take part. There were about twenty entries of all classes; big yachts, small yachts, native boats, and others. I was

in one of the coastguard native boats. Unfortunately, there was not half enough wind for us, and as we had to give half-an-hour's start in the two rounds we had no chance; in fact the race developed into a drifting match, and after we had done one round we gave up and went aboard the *Polyphemus*, where the officers were holding an afternoon 'At Home.' This vessel is an extremely interesting warship, and I was fortunate in having so favourable an opportunity of seeing something of her. I am promised a fuller acquaintance with her machinery.

PAY-DAY.

Friday, June 1.—This being 'pay-day,' had the quite novel and hence peculiar pleasure of drawing my very first regular professional self-earnings. In addition received a month's salary as an indemnity for expenses of my journey out here. Pay-day is on the first of the month, so I had only to draw fifteen days' 'screw,' as my appointment dates from May 16; but the sweet freshness of the sensation was not thereby impaired. After luncheon a short siesta; then a visit to the dentist, alas!

ADIEU, ALEXANDRIA.

It seems that I am to leave Alexandria next Monday and proceed to Cairo with Zachariadis; and, after spending the night there, go on to Suez the next day, and in all probability leave Suez the following Friday for El Tor. The pilgrims will not begin to arrive at El Tor for another fortnight, so we shall have two or three days in which to get things there into ship-shape. This morning ten Gardes Sanitaires were appointed as our assistants, some of whom are to come to Tor with us at once. The President of the Sanitary Council made them a long speech as to their various duties, and they were then introduced to their superior officers, namely, to Zachariadis the 'Director,' and to me the 'Sub-Director' of the Pilgrim Sanitary Station of El Tor. Was pleased to find I was able to follow Mr. Miéville in every word he said, my ear having already become fairly well attuned to the rapidities and the more delicate voiceinflections of the French language. It is one of these guards, named Helfield, who has been attached to me as secretary and interpreter. He is an Anglo-Indian and a smart fellow, about twenty, has been in the police service, is an accomplished linguist in French, Italian, Arabic, and Greek, and knows a little of several other languages. I wonder why he should be only a Garde Sanitaire.

Saturday, June 2.—Made final arrangements. Obtained a cool 'helmet' and some other necessaries.

At midday took a native boat and went to call on the captain of the *Polyphemus*, in acknowledgment of his 'At Home' of the other day. His name is Campbell, and he is a good fellow. He 'received' me, on boarding, and took me down to his cabin and offered refreshments, and then himself took me over the whole ship. It was all very interesting, but especially the mechanism by which the guns and torpedoes, &c., are worked. Later, had out the dog-cart and drove to the Sports Club, where Miéville was playing a match at golf with Campbell of the Polyphemus. Miéville was successful. After the match saw a good game of polo. Having met Mrs. Miéville and other ladies and had tea, drove into town and went to the Club and played a game or two at 'snooker.' In the absence of their really good players at billiards, find that I have little difficulty in holding my own at snooker or other games played on the table. After dinner went with Ward to the Exhibition, where we heard 'Cavalleria Rusticana.' It was pleasingly rendered by the Exhibition Company. We sat outside the theatre, but inasmuch as it has no side walls we could both hear and see well.

Sunday, June 3.—On meeting the President this morning found that I must go straight to Suez by the first train to-morrow. A telegram had just been received from my Austrian colleague Blatteis, there, stating that his bad leg (see May 26) would not let him work, and that it was necessary for him to have a few days of rest. Rather sorry to hear this, as I was looking forward to having a few hours in Cairo and the advantage of Zachariadis's company on the journey. However, I have had a very delightful holiday and am quite ready for work. Moreover, Cairo will keep.

Went out to lunch with the Allens, at Ramleh, and after lunch made two or three calls, ending up with one on Dr. Mackie, who gave me much good advice as to how to live and so forth. He is 'a real Briton,' and I hope when he goes to England in a month or

so, he will see my people. He will prove a welcome guest at 'Ashlands.'

Having returned to my hotel, got into dress clothes to dine with Mr. Miéville, and receive last instructions. He gave me excellent entertainment as usual, and, when Mrs. Miéville and a Miss Simon had retired, we had a long and interesting and, for me, instructive talk on my work at Tor and at Suez. Having ended this we joined the ladies, and I played several things on my banjo, and, am happy to say, was able to sing a little. Am in hopes that what little voice I ever had is at last coming back, for I was able to sing 'The Frenchman' with a little falsetto for the first time since I got my larynx damaged (at football) last November. On returning to the hotel, did a little packing, and then sought and found five hours of oblivion.

EN ROUTE.

Monday, June 4.—Rose at six and finished packing. The bags, &c., were not sufficient to contain all impedimenta, not only because many articles had been purchased in Alexandria, but because one had not now the advantage of the deft hands of kind sisters to aid in the close fitting that was necessary. This difficulty overcome by a commodious hold-all, went at nine to the station and was pleased to find several friends to 'see me off.' Also was most glad to find that one of them, Inglis, was coming part of the way with me. The journey was not interesting as regards scenery. Much of Lower Egypt is an enormous plain, 'flat as a billiard table,' but highly

cultivated with corn and other cereals and cotton. The dust was terrible, rendering absolutely necessary the wearing of protective spectacles during almost the whole of the journey.

At a place called Tanta friend Inglis left me; he is the English Consular Agent there. Just before reaching Tanta the first sight of the Nile greeted my eyes. It is crossed here by a fine bridge, the central portion of which is on a pivot like a cupboard button, and, swinging round, leaves two ways clear for boats going up and down. Tanta is a dirty-looking Arab town; the scene, twice a year, of a large native fair.

The Egyptian carriages are very good on this line; large, airy, and comfortable; many of them having corridors running alongside, and fitted with lavatories at either end. After leaving Tanta a run of an hour brought us to a place called Benha, where another branch of the Nile was crossed. Here had to wait half an hour for the train from Cairo to take me on to Suez.

EASTERN BRIGHTNESS.

Thus am I ending a delightful three weeks in Alexandria, or 'Alex,' as many residents term it—delightful in the clear, brilliantly bright atmosphere of the town and its surroundings; in the freshness of its scenes, and the novelty of its life to a young Englishman like myself; in its charming picturesqueness; in the freedom yet full culture of its society; and in the, say, one week of welcome play and two weeks of still more welcome work which the three weeks of official and private 'reception' have afforded me.

Truly my entry into Egypt has been bright. And there is still brighter light in front.

Now for a few hours' or days' halt at Suez; then on for some months at Tor or El Tor, for my 'pilgrim' work with many assistants; then back to Suez for a longer period, and so on.

NATIVE CUSTOMS.

Many natives were waiting on Benha Station, and it was interesting to watch their little manners and customs. The mode of salutation is odd. If it is between equals they touch forehead and chest (sign of the Cross?) with their fingers, after shaking hands. With inferiors the greater man allows the subordinate to take his hand and kiss it. Chairs and stools are quite at a discount, as all the natives sit on their heels by choice. The wearing of veils by the poorer women is either lapsing or the majority are not strict followers of the custom.

In a little while the Suez train arrived from Cairo, and I found a place in a compartment with an Englishman who was on his way to Ismailia, en route for Port Said and England. Lunch was shared, and, after a short siesta, a place of much recent historical interest to Englishmen was reached, namely, Tel-el-Kebir. Just outside the station is the cemetery where our men were buried after the battle of 1882. The French, I find, still politically make the (botanical) mistake of supposing we want 'to graft the oak on the date-palm.' What we intend, for one thing, is that our 'oak-planks' shall, 'without let or hindrance,'

pass and repass Egypt to countries far beyond. The railway here lies through the desert, and the journey soon becomes monotonous.

THE SUEZ CANAL.

After a while Ismailia is reached—quite a town, with a palace for the Khedive and his guests when the Canal was in progress. Here my companion left me to go northwards. From hence southwards to Suez the railway runs more or less close to the Canal, and, when the water is a little below one's line of eyesight, it looks very strange to see quite big vessels apparently sailing along through the sand of the desert. As a canal it is like any canal in any country, but in size and in importance as a highway for large ships it is unrivalled.

For some time a range of mountains had been in sight, and now as the train approached Suez, one began to be able to see more of their details; wild and without any sign of vegetation, and apparently some three thousand feet high. I and my gun will make their better acquaintance later on. By this time the sun was getting low and its setting rays produced lovely effects of colouring. For these glorious Eastern sunsets 'Lord keep my memory green.' Dear old Dickens, how he loved light!

Suez.

About 6.30 the train reached the outskirts of Suez. On the platform found a man named De Laugier, who is our 'Chef de Commis' at the Sanitary Station.

He knows a little English, and conducted me to the only hotel, 'Hotel Bachet,' at Terre-Plein, the waterside suburb of Suez where we quarantine folks have our office or 'Santé.' Terre-Plein is about three miles from Suez proper, and is a small village composed chiefly of docks, stores, houses, &c., for canal and associated public purposes.

At the door of the hotel was welcomed with open arms by my Austrian colleague Blatteis. He knows very little French and no English, so he most gladly hailed a colleague who could converse with him in German. He looks sadly delicate, has already had to cease work for a day or two because of rheumatism, as well as the bad leg, goes in for morphia hypodermically to baffle insomnia, is a terrible pessimist, and carries a revolver so that it is far more likely to do harm to himself than others. Nationally a Pole, he is well educated in German, and promises to be a personally useful and more or less amiable companion. But I doubt his strength for the post. Ferrari, the man who occupies the senior departmental position here, is a jolly old Italian, knows no English. speaks French, is a sportsman, and will, I think, be good friends with me. Zachariadis, my senior at Tor, is here. I like him more and more. He is a Greek, and an accomplished linguist, and is to teach me Arabic and more French, while I teach him English. Truly our sanitary ship is manned by a polyglot crew.

Tuesday, June 5.—'The Egyptian Gazette,' an Alexandrian daily newspaper, established in 1880, and published by Mr. Andrew Victor Philip, editor

and proprietor, has, on Tuesday, June 5, 1894, the following short paragraphs in English and French:—
'Dr. Attfield, who has been appointed Deputy Director of the Tor quarantine camp, left Alexandria yesterday for Suez and will leave the latter place on Friday next for Tor.' 'Le docteur Attfield qui a été nommé sous-directeur du campement quarantenaire de Tor est parti hier d'Alexandria pour Suez; il quittera cette ville vendredi prochain pour aller prendre possession de son poste.' News must be scarce, surely, for the movements of a sanitary official to be thus chronicled.

After the long railway journey of yesterday a good night's rest was much appreciated. From this morning at 6 a.m. until 6 a.m. to-morrow am on duty for my colleague; that is, shall have to visit and inspect medically all vessels entering the roads and wishing to pass through the Suez Canal northwards, and out at Port Said into the Mediterranean and on to the various ports of Europe. Ships coming southwards have already been inspected at Port Said.

THE SUEZ CANAL.

In 1870, the first year it was open, 415 ships went through the Canal. In 1893 no less than 3,341 ships traversed it, or nearly ten daily; half going to, half coming from, Europe. That would give us, now, an average of five to inspect during the twenty-four hours. They carried, as the statistics show, 186,495 passengers. The average duration of the transit was twenty hours forty-four minutes, say twenty-one

hours; the ship moving on for seventeen hours, and occupying four hours in waiting here and there for other vessels to pass. As, obviously, every vessel must steam on partly, if not mostly, by night, each carries its own or a hired searchlight. Of the 3,341 vessels, 2,405 were English, 272 German, 190 French, 178 Dutch, 71 Austro-Hungarian, 67 Italian, 50 Norwegian, 34 Ottoman, 29 Spanish, 24 Russian, 10 Portuguese, 5 Egyptian, 3 American, 1 Belgian, 1 Brazilian, and 1 Japanese. The Canal is nearly 100 miles long. It belongs to a company, of which we English, thanks to Lord Beaconsfield, in 1875, now own the great majority of the shares. We then, by telegram, bought 176,602 out of the whole 400,000 £20 shares, giving the Khedive £4,080,000 for them After this digression 'revenons à nos moutons,' for I and my colleagues are in no way connected with the Canal or its Company; our duties being sanitary and national, and, in a still higher sense, cosmopolitan.

QUARANTINING.

Waited on at the hotel, reading, and typewriting this journal, but it was 3.0 p.m. before I had any professional call. Then one of our men came along, and informed me there was a P. & O. vessel in the roads. De Laugier, our chief clerk, was picked up at the office, and together we steamed off in our launch to the ship, which turned out to be the *Peshawur*. On getting alongside, we were met on the 'accommodation' ladder by the surgeon, and, before going on board, the ship's books had to be produced, together

with the bill of health. These proving satisfactory, we went on deck, and were received by the captain, and taken round the after-deck, where all the passengers and crew were mustered for inspection. There was no sickness on board; and Bombay, the port from which they had sailed, having a clean bill of health, one was able officially to give them 'pratique' at once, i.e. sanitary permission to proceed through the Canal, en route for England.

On board found a man I knew named Lovel, and, oddly enough, and actually while we were talking, a Suez man came off on the P. & O. launch to whom Lovel had given me a letter of introduction before leaving England some two months ago. No other ship arrived till after dinner.

In the afternoon my hold-all had been sent down to the office, as during night duty one has to remain at the 'Santé,' as the office is termed, and the only provision for comfort consists of a sofa, which looks as if it might be 'populated with vampires;' so apparently one should at least be provided with a rug and various etceteras. The Santé launch goes off duty at 8 p.m., hence at night the health officer has to go out in some other, usually that of the agent of the vessel. In the dim light, it is a bit awkward climbing up the side of a ship from a launch, especially if there is any sea running.

The ship to which I was called after dinner, at 10 p.m., turned out to be a 'tramp,' that is, cargo boat, and carried no passengers. She had no sickness on board, therefore she had her 'pratique' at once.

While proceeding to the ship, we overtook a boat

laden with a portable dynamo and electric searchlight or 'projector' apparatus, which is taken in by ships wishing to go through the canal at night, in order that they may be able to see to steer a true course past the buoys, which every few yards mark the channel.

EGYPTIAN FLEAS.

No further 'calls' came, and after a violent battle with innumerable specimens of the genus 'pulex' and others, in which the genus 'homo' was badly worsted, slept more or less till six, when I went off duty. Such a collection of fleas, flies, and creeping things various, I have never come across, and never, thank heaven, has such a scratch collection come across me. I sympathise with Kinglake, who literally tumbled into Suez more than fifty years ago, and who says, in his 'Eothen':—'After passing a night like this, you are glad to gather up the remains of your body long before morning dawns.' Of Tiberias he says:—'The fleas of all nations were there . . . and rejoiced in one great international feast.' Poor Kinglake! I know.

Wednesday, June 6.—Getting to bed, after a much-needed and soothing bath, slept soundly till noon, when Dr. Zachariadis and De Laugier called. After lunch went by train into Suez, and after some official visits was taken by Mr. Tuck, of the Eastern Telegraph Company, to the Tennis Club, where I met and was introduced to most of the English colony. Tuck was good enough to send to London a service 'wire,' announcing to my people my safe arrival in

Suez; he also kindly asked me to dinner for to-morrow.

Allusion to 'calls' reminds me to say that out here in Egypt, if one desires to know any persons, you, although a newcomer, just go and call on them, not waiting for them, as older settlers, to call on you first, as is usual in England.

Pensions.

I ought previously, also, to have told my friends that Egypt is not behind other countries in providing pensions for those in her service. Your interest in continuous work is wisely secured by holding back for you five per cent. of your salary. The resulting fund is liberally supplemented, and your claim is unaffected by change from one branch of service to another. Pension does not operate until after two years, the deducted five per cent. being returned to you if you leave the service within that period.

Thursday, June 7.—Leaving Terre-Plein at 8 a.m., Suez was again soon reached, and a visit was paid to the Customs, where, having a letter to the chief, Mr. De Wilton, I had no difficulty in getting all my boxes through without examination, and without paying any duty. De Wilton seems a very nice fellow, a great friend of Mr. Miéville. After the Customs business was finished, and the boxes sent off to the ship that is to take us to El Tor, a visit was made to the Post Office, where there was a large budget of thrice-welcome letters waiting for me. Chiefly acceptable, perhaps, among them was an extremely interesting

letter from my most excellent of fathers. I thank, too, the friends who have sent me various printed papers. They usefully supplement 'Black and White,' the 'British Medical Journal,' 'Punch,' and the weekly edition of the 'Times' that are sent from home.

Meeting Zachariadis, we went to a big general store and gave orders for additional things needed at Tor, to which terminus of my halting journey we go to-morrow.

ADIEU, SUEZ.

So much for Suez. Apparently, I must, broadly, look to Suez, Alexandria, and occasionally Cairo, for town life, and to Suez and Tor for actual work; to all four, and their surroundings, I can look for perpetual pleasure. There will probably always be a little work—chiefly reporting progress—in connection with Alexandria, and some play—chiefly shooting, boating, fishing, and mountaineering—at Tor and at Suez; but the broad division will be as just stated. Such an admixture is, apparently, to form my life in Egypt. I could not wish for a happier life for some time to come.

As regards duration of transit—not distance—Suez is, say, half way between Alexandria and Tor, a day's journey from either. Professionally important for me, Suez affords little for general description or comment to friends in England at present; more, doubtless, a few months hence. Population, say 12,000. Not so large as Watford. In the evening Mr. Tuck gave me quite an Alexandrian dinner.

Friday, June 8.—The last rubber at whist at Mr.

Tuck's last night being prolonged until after train hours, had to ride to my suburban quarters at Terre-Plein on one of the world-celebrated Egyptian donkeys. It and its driver might have stood for the original picturesque and absolutely truthful bronze on the sideboard at home. The strength of boy and beast is remarkable. My weight in my clothes is something near twelve stone and a half (175 pounds), and yet the donkey carried me the three miles at a canter all the way without turning a hair. The donkey-boy also ran alongside, as they all do, in a way that would be envied by many of our long-distance runners at home.

EN ROUTE.

This morning was spent in making final arrangements and in packing clothing and articles various—personal, professional, and domestic, including all sorts of tinned and other foods and drinks; for El Tor being only a small village of some four hundred inhabitants, there will not be much to be had there other than the merest necessaries of life. At five o'clock we went on board the ship that was to take us to El Tor. We carry, I find, 160 paying rilgrin passengers, and about forty soldiers for our encampment at Tor.

Motley Groups.

Some of the scenes of embarkation were noteworthy. Thus, just before leaving, several pilgrim stowaways were discovered, who were evidently anxious to make the pilgrimage trip free of expense to

themselves. They were, however, 'shown over the side' with but slight regard to their feelings, religious or otherwise. One rather sad incident was the despair of an old Arab who apparently was unable to raise the necessary money for his passage. Eventually, he was carried off the ship, howling with rage and despair at not being allowed to go on the pilgrimage. From the upper deck, looking down on the after part of the vessel, which was the part devoted to the pilgrims, one longed for the pencil of an artist to outline the picture that presented itself. Here, close to us, was a group of friends apparently congratulating a brother about to make his first pilgrimage; but whether they were wishing him a safe return or the reverse it is impossible to say, for any good Moslem dying on a visit to Mecca has a direct pass to his Heavenaccording to their belief. There, a yard or two away, was a knot of merchants wrangling about some goods to be shipped. It seems to be quite a characteristic of this country that nothing can be done without a great deal of talking, gesticulation; and general excitement. On another side a group of stolid-looking soldiers, clad in a dull sort of brown holland 'khaki' uniform and red 'tarboosh,' contrasted strongly with a party of Greek Church clergy who had come to see the 'Bishop' of Tor off. These latter all wore gorgeous robes, and their hats, made of black felt, were perfectly cylindrical and without any brim at all, except that of the Bishop himself, and that had a brim at the top, as it were. I was introduced to him afterwards. His languages being Greek, Arabic, and Russian, we were only able to converse through an interpreter. He occupies a

cabin with Zachariadis and myself. Besides our human cargo we have a collection of animals of all sorts—donkeys for use at Tor, a horse for the commandant of the troops, and any number of sheep, goats, and chickens for the commissariat department. One corner of the upper deck is screened off for a grand pilgrim and his hareem. He is off to Mecca, and is, presumably, afraid to leave his wives behind; for, as a rule, few women (excepting those of Egypt) make the pilgrimage compared with men. The whole of this eastern scene was remarkable—especially to cold, scientific, western eyes.

The Narguileh, the boat we are on, is a very old steamer, and has no proper saloon, so we had dinner—which, by the way, was very good—in a sort of wide passage between the state rooms, just wide enough for a narrow table with chairs on each side, leaving barely room for the steward to pass. After dinner the banjo was brought out, and we had a concert on deck in various tongues, among which were Greek, German, Afabic, French, and last, and perhaps not least, English. The passage down the Gulf was delightful—calm, and not too hot; the sea phosphorescent. One had quite a pleasant time.

About ten o'clock, on going to the cabin, the heat, the cockroaches, the sanctity of the Bishop's presence and other less pleasant conditions so overcame me that a night on deck was deemed preferable. While adjusting cushions, the Messageries boat we had left at Suez passed our modest craft in great style, going two knots to our one. Then one's eyelids fell before the glory of the stars and oblivion followed.

EASTERN BRIGHTNESS.

About four o'clock woke and found we were comparatively close to the east shore of the Gulf, and as it grew lighter one was able to see the grand masses of the Sinaitic range of mountains in detail. The lovely sunrise over them required the pen of a mighty poet to describe the wondrous effects of its light, shade, and colour, which, as the sun itself appeared, merged into one glorious Oriental blaze of gold.

EL TOR.

Saturday, June 9.—This day has been a happy anniversary of my birth (in 1866), and a day—or, looking backwards and forwards somewhat, a period—in my life that I am not likely to forget.

After an early breakfast, on regaining the deck about seven, found we had reached El Tor. The anchor was dropped about a mile from the jetty; for, owing to the many coral reefs, it is not safe for a vessel of our size to go in closer. Numerous native boats came out, and the unloading of the various stores began. This continued till about midday, when Zachariadis, myself, our staff, and our friend the Bishop went ashore.

One's first impressions of Tor and its immediate vicinity as seen from our ship are not unfavourable. At first nothing but a wide sandy plain meets the eye, with the Sinaitic ranges rising up in this clear air at an apparent distance of two miles, but in reality ten

or twenty. The opposite shore of the Gulf is well within view, and the mountains which border the Red Sea are plainly visible. The village of Tor consists of a few flat-roofed houses, of which the two principal are those of the sub-monastery of the Church to which the Bishop belongs and the office of our 'Santé.' To the right, at a distance of a mile, the buildings of the disinfecting station and our stores, close to the water's edge, nestle under a large grove of date palms. Half way between this grove and the village is seen an old ruined fort which was erected, I find, by the Portuguese to protect the settlers from the Bedouins. The villagers, say good authorities, are descendants of Greek Christians encouraged to settle here to protect and serve the Greek Church Monastery on Mount Sinai; but they have slowly merged into Moslem Arabs, and are scarcely to be distinguished from the surrounding scattered descendants of the Bedouin wreckers and pirates formerly too notorious.

Having arrived in the native boat within a hundred yards or so of the shore, it was necessary, owing to the state of the tide, to change into a still smaller boat in order to land. Zachariadis and I have apartments in a wing of the monastery—two bedrooms, a living-room, and a kitchen and offices, on the first floor; all looking on to the sea, separated indeed from it only by the roadway. The furniture, on our arrival, consisted of several chairs, a table or so, and a bedstead. However, with the resources at our command we soon got things a little more comfortable.

At one o'clock we went to dinner with our leading

Secretary, or 'Chef de Commis,' who gave us, considering the place, an excellent repast. Then we went back to our rooms, and after a short siesta—most refreshing at shade temperatures of 85° to 95° F.—Zachariadis and I had our donkeys brought round, and we rode to the magazine to make a brief inspection of materials.

An Enthusiast.

On leaving the store we rode out to a little village in the desert and made a call on a person named Kaiser, who is a German and an enthusiastic naturalist. Zoology is his chief hobby, but he is apparently a good all-round hand at chemistry, botany, bacteriology, and microscopy in general. It seemed very strange to find such a man in an Arabian desert.

Coming home across the plain at a pretty fast canter, my donkey put his foot in a hole and shot me some three yards over his head. Fortunately both escaped without injury. On reaching Tor we went to a miserable building in appearance, but which turned out to be a sort of café, and contained, mirabile dictu! a not bad French billiard-table. We played several games, in which the Director beat the Sub-Director, as was right and proper. Afterwards we had dinner. Our cook proves to be really a good cook, though troublesome otherwise. We imported him from Suez.

January 6, 1895. This earnest worker's wife died scarcely a week later. His mother after vards kept house for him. Soon they went to Europe. A few days ago I saw him in Suez en route for Tor.—D. H. A.

MANY HAPPY RETURNS OF THE DAY.

I cannot leave this birthday record without again alluding to the extreme interest which my work—pleasure, play, labour, avocation, term it what you will—affords me; whether it be regarded from the pleasurable, personal, political, professional, æsthetical, physical, mental, psychical, philosophical, or any other nine points of view. Here one may be useful without being troublesomely officious, satisfied without being unpleasantly satiated, righteous without being specifically religious.

THE ARCHBISHOP.

Sunday, June 10.—After breakfast this morning a formal call was made on a great Archbishop. 'Bishop' with whom we travelled yesterday is, in reality, an Archbishop of the famous Greek Church Monastery of St. Katherine on Mount Sinai. The Tor monastery is only an offshoot of its Sinaitic parent. He is breaking his journey here, en route for Sinai, coming from Cairo where he has a palace. It seems that in the days of the prophet Mahomet some Greek priests very hospitably entertained that holy man, and that in return he granted them certain special privileges which are said to be described in black and white in the library at Sinai, drawn out on parchment and signed by the prophet himself, nearly thirteen hundred years ago. The present Archbishop is a most interesting personage.

ALCOHOL.

The monks at Tor make a good deal of spirit from dates, a sample of which, flavoured with aniseed and called 'mastic,' was handed round during our call. One sips it neat, or drinks a dilution with water. In the latter case the fluid is milky through separation of essential oil, so far resembling the diluted absinthe, so much drunk by the French.

In the afternoon had some good fishing in the inner bay, catching a dozen fish resembling haddock or whiting, but better flavoured than either. They made a welcome addition to the evening meal.

Monday, June 11.—Up at 6.30 this morning, and after a light breakfast rode out to the magazine to superintend the making of some additions to our disinfecting apparatus.

While having tea the wind has blown away my 'rough copy' for this sheet, hence it is necessary to re-write. Good exercise in typewriting and construction, no doubt; but annoying to think that a section of my journal is speeding across the desert, en route for the Gulf of Suez and its parent the Red Sea.

THE KHAMSEEN.

A visit was then paid to the 'Pharmacie,' which is a wooden building situated about a mile from the magazine and close to where the sets or 'sections' of tents for the pilgrims will be erected in a few days. It was in a disordered state. To-morrow there must

be a great clearing out and rearrangement of the contents.

When we were ready to ride back to Tor we found that Zachariadis's donkey had escaped from its 'hobbles' and was cantering off towards the magazine. Quickly mounting my own donkey, which is very fast and strong, an exciting chase ensued which ended after a time in the capture of the runaway.

Towards night a bot wind or 'Khamseen' sprang up, and lasted for six hours. The current was as near moistureless as possible, and with a temperature of over 90° F., and blowing with a velocity of thirty-miles an hour, it dried up everything at a great rate. For example, at dinner there was some quite new bread, but before we had finished, it had become as crisp as toast on the outside. Such dry heat produces great thirst, which one is fortunately able to assuage with quite cold water, the coolness of which is produced by the rapid evaporation from the outside of the porous earthenware water-jugs that are in general use in this country; so porous, indeed, are they, that it is necessary to keep them standing in a soup-plate.

THE CAMEL POST.

A camel-express post has just started for Suez, and I only had bare time to enclose triplicate copies of my journal (relating to Suez, June 4 to 7) in envelopes addressed to Hadley, Mistley, and Watford respectively. I may be able in future thus to take advantage of any similar suddenly despatched official messenger. The ordinary postal service at Tor is

very uncertain, depending as it does on the Khedivial boats, which are supposed to run a fortnightly service up and down the Red Sea including its northern extension of the Gulf of Suez, on the eastern shore of which Tor is situated. But, like many things in these districts, this service is liable to be deferred till 'bouckra,' a word that even literally means 'to-morrow,' but is commonly equivalent to 'any future time.' Hence important letters are despatched by a native on a camel across the desert, but on a route parallel with the east seashore. (Vide map showing Red Sea, Gulfs, and Suez, facing page x.)

The four-footed 'ship of the desert' is not the common weight-carrying camel, but of a more fleet breed. He can shamble along at the rate of eight miles an hour for nine or ten consecutive hours and for twelve or fourteen consecutive days. He can even manage fifty miles a day for five days without drinking. I thought my friends might like to have notes from me by so novel a letter carrier. The envelopes will show by the postage stamps and the obliterating stamp marks that this camel service is made a part of the ordinary international postal system. One piastre (twopence halfpenny) per half ounce pays everything; camels, trains, steamers, horses, postmen; door to door.

TEMPERATURE.

The shade thermometer is now rarely below 90° F., sometimes 100° F. Fortunately these high temperatures do not seem to affect me in any more inconvenient way than causing profuse perspiration.

THE ARCHBISHOP.

The Archbishop of the Monastery on Mount Sinai turns out to be a fine fellow. He invites me when the Koran-enjoined (chap. XXII., ver. 28-9) months of the Mecca pilgrimage are over, to spend a few days with him at the monastery of which that at El Tor is, as I said, only an offshoot. It is only two or three days' camel ride from here. Soon, therefore, I shall hope to stand on the summit of the most historically interesting mountain in the world—Mount Sinai. The top is only eight or nine thousand feet above the sea-level and of course less above the monastery.

PREPARATORY LABOURS.

Tuesday, June 12.—Up early this morning and rode out to the store of drugs, or 'Pharmacie,' where, with the aid of my interpreter Helfield and several Arab labourers, most of the morning was spent in getting the contents into order and in cleaning up a bit. The way many of the chemicals, &c., are sent in and stored is rather disgraceful; paper packets, thin chip boxes, and corked bottles being used where tins, jars, and stoppered bottles ought to be employed. In the afternoon accompanied Zachariadis on some medical visits to certain of the native houses. The smells and filth are indescribable, and the amount of eye-disease and of cutaneous disease one sees in various forms is terrible.

Wednesday, June 13.—At 6.30 this morning, while quietly having breakfast, we were visited by two priests, one carrying a mother-of-pearl cross and the other a bowl of holy water, 'eau bénite,' and a bunch of herb—Capparis agyptiaca, the probable Hyssop of Scripture—with which to sprinkle the water. Zachariadis kissed the cross and was then sprinkled with the water. At 8 the mails were made up and despatched to Suez on camel back, a journey of some three days. My kodak has, I trust, stored up in its recesses photographic pictures of 'The Camel Post.' In the late afternoon we had another fishing excursion, again attended with success.

A MAHOMEDAN FÊTE.

Thursday, June 14.—This is the Day of Sacrifice at Mecca and is kept as a great feast-day throughout the widespread Mahomedan world. It is on this day, as a rule, that if there is to be cholera among the pilgrims, it shows itself. We shall anxiously await news for the next two or three days. At Tor there is no telegraph, so if serious cholera breaks out at Mecca that fact is telegraphed up to Alexandria, and from there a telegram is sent to Suez ordering down for us a steamer with extra men and stores; for, naturally, during epidemic times our labours at Tor would be enormously increased.

The great feast was fully observed by our friends at Tor. About eight o'clock, just after we had finished breakfast, we were visited by the Archbishop and staff. After that we paid official visits to the 'Governor'

and to the other principal personages of Tor. At each house coffee and liqueur glasses of cognac or mastic were offered, along with bits of dried fish, little cakes, and olives.

In the afternoon, in front of the governor's house, there was a sort of war dance by Bedouins. They fired their guns and brandished their swords in a most reckless fashion, and it is a marvel no one was injured. They were supposed to extract the bullets from their cartridges before firing, but if that small operation presented the slightest difficulty they fired bullets and all, some up into the air, and others into the ground at their feet, the latter blowing the sand and stones about unpleasantly. While these manœuvres were being performed by one section of the Arabs, the rest were keeping up a chorus of shouts and clapping of hands accompanied by the beating of some six or seven tom-toms.

A DESERT GARDEN.

Later on in the day we rode out to the Tor Monastery garden, which is in a small oasis about a mile and a half from Tor itself. Nothing at Tor has given me more pleasure than the sight of this garden. The sudden change from the barren desert to tropical luxury of vegetation is indeed delightful. From the outside one only sees the tops of a few date palms; inside the walls, however, one enters on a fertile garden where grapes, olives, pomegranates, figs, oranges, and lemons flourish in abundance; as well as such ordinary English vegetables as onions,

potatoes, and tomatoes. Of flowers various, stocks and marigolds were the most familiar. It seems strange that at one little spot in the desert there should be this luxuriance of vegetation and that within a hundred yards there should be nothing but sand. The presence of water—there is a well there—and careful cultivation by man, however, explain a good deal.

OUR KITCHEN.

Friday, June 15.—To-day, with Zachariadis, made a 'grand tour d'inspection' of the whole camp, and afterwards did some work on the electric apparatus in connection with our disinfecting stoves. Just before dinner we had to send our otherwise excellent cook off to prison for being disgracefully drunk and burning every dish of our dinner. He will be kept in 'limbo' till to-morrow, when he will be offered his liberty on condition of never doing so again; otherwise we shall send him back to Suez by the next boat. Our kitchen range would interest the people at home; it is none of your complicated kitcheners, but simply a row of four fuel-holders, each closed at bottom and on three sides and open in front, with some bars of iron across the top for supporting the pans. Charcoal is used as the source of heat. The monks in isolating their 'mastic' alcohol from fermented dates use distilling apparatus as primitive in its way as our kitchen furnace

During the day the thermometer reached 100° F. and to-night it is very close and damp; an unusual state of things for Tor, where, as a rule, there is very

little humidity and a strong wind to temper the heat.

Saturday, June 16.—All the morning engaged with the sterilising stoves which are much out of repair. They are for steaming, and so disinfecting, the pilgrims' clothes. For this work one's home experience in mechanics and electricity proves useful.

Had to do some unpleasant reprimanding, deputed to me; but in a place like this it is highly necessary for the superior officers to be very strict, in order that discipline may be maintained.

The thermometer has been above 100° F. to-day in the shade.

THE ARCHBISHOP.

Sunday, June 17.—This has been a Greek Church red-letter day, and we both attended service in the monastery chapel. The service was not very interesting to me because it was in a language I could not follow, namely, modern Greek. Next Sunday the Archbishop promises to let me photograph him and the lesser luminaries 'in situ' after the morning service.

My ecclesiastical friend is on professional equality with our highest church dignatories at home. According to a little book from the library at home, having the quaint title, 'The Denominational Reason Why,' there are four archbishops, also called patriarchs, in the Greek Church; namely, those of Constantinople, Alexandria, Antioch, and Jerusalem. The one at Constantinople nominates the other three, but is himself under allegiance to the Sultan of Turkey. Our friend's was the first archbishopric that

ever existed in any country, the Bishop of Alexandria being the first ecclesiastic for whom was devised the term archbishop, a title afterwards adopted by all sections of the Christian Church. The book already cited says: 'This earliest mention of an Archbishop is found in the Second Apology of Athanasius against the Arians (about A.D. 350). From that period it has been conferred upon the holders of certain sees, distinguished by their geographical or ecclesiastical importance, such as Paris, Canterbury, York, Cologne, or Jerusalem.' An 'Archimandrite' is a Superior of a Greek monastery. Everybody seems to respect the present holder of the Archbishopric of Alexandria.

YACHTING.

In the afternoon we had some fine sailing in a good boat that originally belonged to a Brazilian manof-war which was lost off here about a year ago. There are at Tor two little bays, an inner and an outer, formed by coral reefs; in the inner bay, no matter how strong the wind, there is never much sea on, hence it makes a perfect practising area for an amateur yachtsman like the writer.

PISTOL PRACTICE.

On our return had some pistol practice with the revolver which Tom Farries so kindly gave me. There was a crowd of onlookers, and, the shooter being in good form, a considerable and, maybe, a useful impression was made. The natives, some of

whom seem all too familiar with weapons, such as they are, apparently had no idea that such a small 'gun,' as they call it, was so effective at such a distance.

DINING AT TOR.

This evening we had a dinner-party at our lodgings. It was really astonishing to find that in a place like Tor it was possible to give such an entertainment. As guests we had the Archbishop and two other priests; the German Consul, Hennen, who, oddly enough, knows no German; Baldini, who is our 'chef de commis,' or chief clerk, and his daughter; and one of our 'gardes sanitaires,' named Caloumenos, who is a Greek, a good old man, and can talk English fairly well. Little Miss Baldini is a very amusing child; only eleven, but has all the ways and airs of a woman of twenty. Being rather pretty and the only European girl in the place, she is most hopelessly spoiled. The following was our menu:—Soup, horsd'œuvres, mayonnaise of fish, two entrées of Arabic construction, quite unnameable, with garlic as the predominant flavour; and after that chickens; then a wonderful Arab custard with tinned peaches. For drinks there were lime juice, gin, whisky, and some very rough Chianti. After dinner, coffee, cognac, and cigarettes. The coffee here is excellent of its sort, made of freshly roasted and ground berries. It is prepared as follows: -About a teaspoonful of the ground article is placed in a little saucepan with the necessary sugar and water, and brought to the boil, when it is poured straight into the cup and drunk,

grounds and all. The banjo was brought out after dinner, and apparently our guests enjoyed the novelty of the instrument, at any rate they were much interested and laughed heartily at several of my songs. About ten o'clock our guests left us expressing much satisfaction with their evening's entertainment.

AT WORK.

Monday, June 18.—This morning indoors finishing up the electric thermometers of the 'stoves.' Letters arrived from home dated June 5; brought in by camel post. A letter dated last October has just been found in the post office, directed to Zachariadis; giving, he says, a fair idea of how 'business,' so called, is carried on in these out-of-the-way places. We direct this evening with the chief man of the place; he gave us a most extraordinary collection of viands, in great quantities.

Tuesday, June 19.—For the last two days a tremendous windstorm has been raging, and neither of us has been out till the evening.

Wednesday, June 20.—All the morning spent with Zachariadis inspecting the well-cisterns, and in arranging for our field hospital; as well as for my laboratory, in which cholera investigations are to be carried out if we have cholera this year. Came back with a bad headache and feeling rather sick and giddy; expect it is a little touch of insolation such as even folks in England get if they expose themselves too much to hot sunshine. An excessive amount becomes serious 'sunstroke.'

A VIPER.

One of the 'gardes' found a snake in a trench this morning, and succeeded in catching it in a slip-knot and bringing it to me. With some difficulty it was placed in a wide-mouthed bottle, and despatched with chloroform. After post-mortem examination I found it to be a specimen of the Arabian viper, said to be very poisonous. I have dissected it and made a preparation of its head, showing the poison-fangs.

INSOLATION.

Thursday, June 21.—Had a bad night, and a good deal of headache and other gastro-intestinal trouble to-day; in consequence had to decline an invitation to dine with the Archbishop this evening. In future I must be less venturesome in the fierce sun rays.

Friday, June 22.—Slept well, and except feeling a little weak am in my usual health.

We made a full steam trial of our new boiler to-day. It worked admirably, and gave us ample steam for all three disinfecting stoves. The electric automatic signalling thermometers answered perfectly.

FLYING FISH.

In the afternoon went sailing, and saw many socalled flying fish—the *Exocatus volitans*. Their pectoral fins are sufficiently developed to enable them to make so-called flights, or rather jumps, of some twenty yards at a time. They had the appearance of rather large herrings. A shark was said to be accompanying us, though from where I was sitting steering he was not visible to me.

LETTERS FROM HOME.

Saturday, June 23.—To-day has been one of great excitement, as the fortnightly post steamer was due to arrive. The whole village turned out on the quay soon after six, when she was reported in view, and within half an hour Zachariadis, our 'chef de commis,' and the writer went off to board her in our small boat. The steamer having come to anchor, we soon were comfortably seated on the quarter deck, discussing the latest news from Egypt to the invariable accompaniment of cigarettes and coffee. An iced drink afterwards was very acceptable, the more so that it was the first for a fortnight, and 'toujours' goatskin-carried water becomes insipid. On board we found the remainder of our 'personnel,' namely, some one hundred soldiers, for forming the tent cordons, and about the same number of porters, guards, hospital orderlies, and other officials to be attached to the various tent 'sections.' On Monday I will give a detailed description of the general arrangement and workings of the quarantine camp. On again reaching terra firma we went to the post office, and being 'big bosses,' were allowed inside while the sorting was proceeding, and, in consequence, obtained our letters considerably in advance of the ordinary mortals waiting outside. For me there was a large budget, including letters from grandma, Auntie Nell, mother, Gertie, Evelyn Morrison, Tom Farries, Harry Dorman, and last, and by no means least, one from the governor. Thanks many, to each and all. The dates are all between the seventh and eleventh of June inclusive, so they have been about fourteen days on the journey. A 'British Medical Journal' reached me, dated Saturday, June 16: that is to say, it only took just over a week to travel from London to Tor. The 'Bergfeld' filter from Bloomsbury also arrived, in good condition, the post office people charging me five shillings for duty. Was glad to have it, as I have not yet analysed the water here, and know but little of the filtering qualities of the native porous earthenware 'ziehs.' The latter are used all over Egypt, though admittedly for cooling the water by evaporation rather than as true filters.

We are now quite prepared for the first arrivals of pilgrim ships, which may reach Tor any time tomorrow, or Monday at the latest. This evening had a little return of the gastro-intestinal trouble.

A Tor man has brought us some very odd-looking sea urchins; also several bivalves, about ten inches long, that are very powerful, being able to crack any small stick in two that is inserted between the shells. I am told that the natives eat these, but that they are liable to cause serious sickness to Europeans. The tracing out of the cause of the communication of disease by shell-fish (sewage?) would form an interesting subject for a research.

TOR CAMP.

Monday, June 25.—This has been a day of much professional interest. In the early morning Zachariadis and I, as director and sub-director, officially make a 'grand tour d'inspection' of the whole camp, and found everything in good order: the tents ready for occupation; the tanks, from which the pilgrims draw their water supply, freshly filled; the temporary general store and café well supplied with provisions, &c.; and, indeed, everything in readiness for the arrival of the first batch of 1,000 pilgrims, whose ship might be signalled at any moment.

Only a few words need be said here respecting the general lines of construction of our Quarantine Camp at El Tor; for, as to the pilgrims themselves and their mode of life, I must reserve my notes for a separate account of 'A Week in a Quarantine Camp.' Still, it is time I gave my friends fuller information respecting my very interesting, but also highly responsible, professional work; for to deal, in the interests not only of Egypt but of all Europe, with the health or disease of thousands of one's fellow-creatures is a sufficiently serious undertaking.

The camp consists of 700 or 800 tents, arranged in six sets or 'sections,' each section separated from the next by about 250 yards. It is situated about a mile from the village of Tor, in a south-easterly direction. Each 'section' consists of a slightly varying number of tents to suit the varying number

of pilgrims in different sized ships. On the average, there are about 120 tents to each section, arranged in four parallel lines, and each tent is supposed to hold only eight people. Thus we can deal with a separate shipload of pilgrims in each of the separate six sections—a total of 6,000 pilgrims at one time; quite an army of the possibly infected to be confronted with just two, yet sufficient and confident, champions of health. At each of the two ends of a section there are placed tanks to hold fresh water. Being in the arid desert as we are, there is no other water than that which is brought from the wells, a mile or so away, on camel back. The tanks at one end of the sections—that nearest the sea and from which direction the prevailing winds blow-are used solely for drinking purposes, and are kept under lock and key; those at the other end are for holding water for washing purposes, and for making the milk of lime that is used for disinfecting the latrines placed at this end of the sections some fifty yards away and down the wind. At the sea end of each section is placed a temporary shop, in which all sorts of provisions, &c., may be bought at a fixed tariff that is exposed to general view, and is now so written in various languages for the different nationalities of the pilgrims, that there can be no ground for such complaints as have been made prior to this year, namely, that the shopkeepers overcharge the foreign pilgrims. Next each shop is a café and kitchen, where meals may be had at moderate prices. For every two sections there is a European guardian. He has under him, for each of his sections, ten or

twelve natives, whose duty it is to look after the cleanliness of the camp, &c. Outside each section is placed the military cordon, consisting of several files of soldiers of the Egyptian Army, with a non-commissioned officer. Their duty is to prevent intercommunication between the sections or the outside community.

In addition to the sections there is a tent hospital, situated some 500 yards south-east from the nearest section, and down the wind. In epidemic years, 500 yards beyond, and also down the wind, a cholera hospital can be placed. Further away is the cemetery.

On the arrival of a vessel carrying pilgrims (the first is already in) she is at once visited by the director. After examining her bill of health, he gives the signal for the small boats to come alongside to take the passengers to the landing-stage or jetty, where they are counted and their quarantine dues received. Any pilgrims having insufficient funds, or, as occurs in the majority of those cases, falsely stating they have not sufficient, are sent into a building and searched. In many cases considerable sums are found on them, hidden in a variety of ingenious ways. One man was seen to drop a packet into his water-bottle, or 'gourley,' as it is called here, and, on being fished out, it was found to contain nearly ten pounds. While the fees are being paid (about four shillings per head), and while those who say they are without money are being searched, a cordon of soldiers, stretching from the magazine (the place of debarkation) to the particular section of tents to be occupied, has been placed; and the pilgrims walk between these lines to the camp, where they are received by the guards, and distributed, as far as is possible, among the tents in parties of eight. But at times as many as twelve or fourteen friends insist on occupying the same tent, and I may add that this year, being, so far, non-epidemic, the rule of eight only per tent is not to be strictly enforced. It is really marvellous how even twelve men can manage, or wish, to sleep in a tent that three Englishmen would think 'rather clese quarters.' The tents are of a cylindro-conical shape, like a sugarloaf on the top of an upright drum, the cylindrical portion being only two or three feet in height.

PILGRIMS.

The pilgrims by the ship that arrived to-day, the Turk, were for the most part of Ottoman nationality. Most of them carried a pistol or revolver in their belts, together with a long knife or sword. These weapons are for self-defence against the marauding Bedawin (or, in English, Bedouins) of the desert between the port of Jeddah and the seventy-mile inland city of Mecca. Whilst trying to distribute some of the pilgrims, one of our European guards nearly came to an early grave at the hands of these wild religious fanatics. He had to call the soldiers to his aid, and, as it was, received a nasty cut from a pilgrim's knife. But, on the whole, pilgrims are very peaceful, and give little trouble. Some eight or so of those from the steamer Turk were in a state of extreme exhaustion, the result of malnutrition, diarrhœa, seasickness, and exposure; these were at once sent off to the hospital. On this vessel there were close on a thousand pilgrims.

FULLER WORK.

Tuesday, June 26.—Harder work has now commenced. Breakfast at 5.30, after which visited the hospital, which consists of some forty tents of a much larger and better description than those used in the sections, each hospital tent containing two beds. There also are tents here for the doctor and staff. On going the round, I found there had been two deaths in the night from collapse, following on the causes stated yesterday. Having finished with the hospital, rode to 'the Pharmacy,' which is under the charge of a Greek named Demetri, and, having arranged for various things to be sent to the hospital, partook of our well-known home drink, compounded of tartaric acid, sugar, and essence of lemon. After a long ride in the desert, under a blazing sun, it is easy to imagine how one appreciates such a 'cooler.'

'BOUCKRA.'

A careful inspection of Section No. 2 was now made. Accompanied by the Arab doctor and an interpreter, every tent was examined, the occupants being paraded in front, and any seriously sick sent off to the hospital. Various complaints and requests were listened to and dealt with. Impossible demands are invariably disposed of with the ever useful

bouckra, i.e. to-morrow, or in the distant future, according as the hearer decides to interpret the word.

Having finished the inspection, returned to the magazine, where the pilgrims of a newly-arrived ship, the Adana, were disembarking. My 'kodak' being at hand, an interesting series of photographs was taken. Many strange scenes were here witnessed. In this vessel we had a surgical case. One of the pilgrims had fallen off a camel at Port Jeddah, and fractured his right thigh-bone. He was in a very bad way, and was sent off to hospital at once.

EASTERN BRIGHTNESS.

Returned to Tor, dined, 'siesta-ed,' and revisited the sections. Everything was proceeding calmly. The pilgrims seemed quite happy and contented, and looked most picturesque, squatting in front of their tents, with a background of desert, and, in the distance, the glorious mountains that were assuming their usual magnificent tinting from the setting sun. As Tennyson sings:—

The charm-ed sunset lingered low adown In the red West.

Cantering home, my donkey put his foot into a hole in the sand, and sent me flying over his head, as once before, and, fortunately, again with no worse results than a slight shaking.

PILGRIMS.

Wednesday, June 27.—Another Turkish ship, the Nighmed Houdeh, with a cargo of over a thousand pilgrims, arrived this morning.

In the carpenter's shop at the magazine I made a splint for the man with the broken leg. On taking it up to the hospital, the patient, to my annoyance, absolutely refused to wear it. A pilgrim sent into hospital this morning was incidentally reported as one of the many who stated that they had no money; but he had succeeded in eluding the vigilance of the searchers at the magazine, for we found over twenty pounds on his person. Their religious fanaticism evidently is not a specific against fraud and falselood.

CAMEL-RIDING.

I tried ordinary camel-riding to-day for the first time. To the quite uninitiated it must be an alarming experience. The driver first prevails on the camel to kneel down by assailing it with a peculiar guttural sound, to imitate which is, for an Englishman, almost impossible. The trouble now begins; the ordinarily placid, good-tempered looking animal at once changes into what is apparently a ferocious wild beast. He roars like a small lion, and exhibits a set of most formidable-looking teeth, and in every way possible shows his dislike and disgust at having to bring his body to the ground, for he well knows that position to be only preliminary to receiving a load. The poor beast having at last been persuaded, the driver places his foot on the doubled-up fore leg of the camel to prevent its premature rising, and then you scramble into the saddle. On announcing your readiness, i.e. having firmly grasped the wooden pegs which stick up from the pomniel

and cantle of the saddle, the driver removes his foot from the fore leg and you then 'look out for squalls.' The camel first regains his hind feet with a tremendous lurch forwards which, if you are unprepared, will certainly propel you yards over the animal's head. Then comes a double backward lurch which, though not quite so violent as the forward movement, is quite sufficient to unseat the inexperienced. All the time this performance is proceeding the camel continues to express his disgust at the whole affair by really quite distressing roars. When at last you are en route, and have a saddle well padded and a good rug and blanket, the peculiar motion of camel-riding is rather pleasant than otherwise.

Zachariadis and I were fed hospitably this evening on board the Adana, the pilgrim ship mentioned as arriving yesterday. They gave us some very nice Turkish wine and a very fair dinner altogether. Too late for debarcation this afternoon arrived the Chibin, carrying about seven hundred Egyptian pilgrims.

'Bêtises.'

Thursday, June 28.—To-day we have had a series of little 'bêtises' to settle. Bêtise, as most of my readers will know, is one of those admirable terms, of which there are so many in the French language, which expresses in a single word the meaning of a whole English sentence. Just one of these 'affairs' may perhaps be worth recording. Our soldiers, having no right of entry of a section without written permission from Zachariadis or myself, took it on

themselves to break this useful rule and forcibly close one of the shops, on the ground that the shopkeeper was using false weights. The contractor for the stores immediately sent in a protest to us. Now, jealousy between the civil and military employés of the Quarantine is liable to grow fast, hence a prompt inquiry had to be held. A commission was formed of myself, the chef de commis, and the Greek interpreter and chief Garde Sanitaire, Caloumenos. After due inspection and inquiry it turned out that instead of metal weights stone counterpoises had been used, but these, on being weighed, were found to be accurate. This is an illustration of the many small disputes we have to settle. Coolness, a little intelligent perception, impartiality and firmness, soon dispose of them.

PILGRIM SHIPS.

This afternoon the *Memphi*, an Austrian Lloyd steamer, came in. She brought only 300 pilgrims, having left twice as many at Port Yambo or Yembu, who were bound for the inland city Medina on a pilgrimage to that burial-place of the Prophet.

On board the Turkish steamer Adana we dined yesterday, as already stated; but Zachariadis had some friends among the officers who invited us to dine with them this evening. After a good dinner we had a jovial sing-song on deck to the accompaniment of the banjo and a Turkish zither. The sail home afterwards was very enjoyable, the water in places being brightly phosphorescent. One never tires of this most beautiful natural phenomenon.

PILGRIMS DEPARTING.

Friday, June 29.—To-day the usual routine visits to the hospital and sections were made. Everything was going on satisfactorily. The second section was being cleared. The occupants of the first went yesterday, their three-day period of quarantine having been fulfilled. It is a strange scene to witness the departure of a thousand pilgrims from a section. The moment the military cordon is withdrawn a stampede is made to the camels and donkeys stationed outside the section by those able to afford the luxury of a ride. The poorer pilgrims go on foot, laughing and shouting with joy, or jumping and running races with each other to see which of a set of friends shall be first at the jetty to embark for their steamer.

Soon, however, will be repeated the eating, drinking, smoking, praying, sleeping, and either playing at ball or at a game akin to draughts or chess on squares drawn on the sand with various stones for men.

On calculation the mortality in the hospital seems alarming if expressed as a percentage on the total entries there; but considering the total number of pilgrims and the privations they have to undergo, the actual death-rate is really insignificant.

This evening another Turkish ship arrived, by name the *Bahr el Ghedid*, carrying some seven hundred Moslems back to Bosnia and Hertzegovina. They were accompanied by a few Tartars and Persians. In charge of the Bosnians was the doctor Kobrynski, whom I met at the Conseil in Alexandria,

and again at Suez. He dined with us and brought us an offering of beer, three dozen real Pilsener, a present for which we were very grateful. After dinner we sailed out to the *Memphi*, the Austrian vessel that arrived yesterday, and had a real German 'Kneip'—i.e. much beer, 'bacca,' and song. The banjo always seems welcome at these entertainments.

Sol's Power.

Saturday, June 30.—At work by six this morning, as indeed has been the case every morning this week; for these early hours are a necessity where it is almost impossible to work between eleven and three on account of the great and scorching power of the sun. I had an experience of its power myself a day or two ago. Just after lunch an Arab doctor at the hospital sent down saying a patient needed immediate tracheotomy. Zachariadis and the writer went off post haste for the two-mile ride across burning desert. It was hot! On our arrival, voila! we found the patient breathing tranquilly and with not the slightest symptom demanding surgical interference. That we were somewhat annoyed with that 'doctor' cela va sans dire. However, the terrible heat did us no permanent harm.

To-day we had an enjoyable 'feed' on board the Austrian Lloyd, and in the afternoon I accompanied Kobrynski through the section where his pilgrims are located. Their head man gave me a very pretty silver inlaid cigar-holder as a testimony of his appreciation of our endeavours to make his people comfortable during their period of quarantine.

THE 'MAAMOUR.'

Sunday, July 1.—Had dinner with the 'Maamour,' who is the civil authority of the Quarantine. His duty is to look after the proper supply of bread to those pilgrims who really have no money; he also has to keep record of any deaths of pilgrims and to take charge of any money or effects of the deceased. He is, in fact, the local representative of the Minister of the Interior. He is an Arab and a strict Moslem, therefore there were provided no beverages other than water, but he was delighted that we should bring our own. The encampment-cooks vary in skill, but no table is better served than that shared by Zachariadis and the writer.

THE HEDJAZ GOVERNOR.

This afternoon the *Mecca*, a Turkish ship, carrying a thousand pilgrims, arrived, too late for landing her 'Haggis,' as are termed those pilgrims who have been to Mecca. She is a particularly fine boat, and is owned by the Governor of the Hedjaz, who was on board, returning on leave to Constantinople. He is a very great personage; indeed he holds the same rank under the Sultan of Turkey as does the Khedive of Egypt. I think I have previously explained that the Hedjaz is the country that, some 200 miles wide, extends down the eastern side of the whole of the Red Sea and Gulf of Suez, and therefore includes Moses' Wells, Tor, Yambo, Jeddah, &c. [See the map facing page x.] Being wise, this high Pasha employs English officers to work his vessel, in spite of the

fact that he is an Admiral of the Turkish Navy. Tomorrow Zachariadis and I are to dine with him. This evening had tea with the captain of the ship and his two first officers. One need hardly say how delightful it was to have a chat and gossip with English gentlemen after a month of conversation in broken French.

British Doctors.

Just before going ashore one of the engineers was taken seriously ill from absorbing too much alcohol and heat. The captain, having no faith in the native doctor on board, begged me to stay for the night; so, having returned to land for some drugs, went off again and slept in the captain's cabin, he sleeping on the bridge. By the morning the engineer had nearly recovered. I am proud to find how British doctors are everywhere respected.

Pashas.

Monday, July 2.—There is nothing to record for the day time except usual inspections. At night, however, we had a grand dinner with the Hedjaz Governor on board the Mecca. We were a party of eight, composed of Zachariadis, the Pasha and three other Turkish notabilities, an Egyptian Pasha, the ship's doctor and myself. Here, in explanation, it ought to be stated that when it is not an epidemic year a few of the highest class of pilgrims, such as our host, are allowed to stay on board and so avoid the inconveniences and discomforts of disembarking

and passing their quarantine under canvas. The dinner was quite remarkable for quantity. Unfortunately ship's tank water, the sole beverage with these Moslems just now, is not the most appetising liquid one can imbibe. The conversation was almost entirely in Turkish, so, dinner being ended, I was not at all sorry when permission was graciously accorded me to leave the table and visit the captain, with whom a pipe of tobacco and some grog were much appreciated; the latter the more so as following a teetotal dinner.

A SHARK.

Just after we came on board there was much excitement, for a shark had been hooked and was being 'played.' He was an enormous brute about twelve feet long. Eventually he proved too heavy for the tackle, which broke when an attempt was being made to haul him on board. There are lots of these snappers swimming round the ship, but we did not get another bite.

APPENDIX.—By J. A. AND M. A.

Letter from Dr. Mackie, C.M.G., to Dr. D. H. A.'s father.

A SIDE LIGHT.

'Alexandria: July 2, 1894.

'Dear Professor Attfield,—I enclose you copies of (a) a letter I received from your son this morning; and (b) the first official communication in which his name is mentioned in connection with his work.

'Yours truly, James Mackie.'

'El Tor: June 29, 1894.

'MY DEAR DR. MACKIE,-You have heard, I expect, at the Conseil, by this time, that everything is going on very well down here at Tor. We have at present six vessels with varying numbers of pilgrims; on an average some eight or nine hundred for each vessel. In the hospital we have had eight or ten deaths; in nearly every case the fatal result being due to the extreme exhaustion caused by malnutrition with consequent diarrhea. In several cases death has resulted from actual starvation. It seems odd that the religion which is strong enough for a long pilgrimage, is not strong enough to enable one pilgrim to give another in need a morsel of bread and a drink of water. In several of the tents I have seen cases of this nature. Dr. Zachariadis and I live in a suite of rooms belonging to the monastery here. Considering the place, we are remarkably comfortable. We get on well together, and are very good friends; he is a capital fellow. My health is excellent. About a week ago I had a decided touch of insolation with the usual symptoms, and for several days was a little enfeebled, but all effects of it have passed away.

'Last week I had a letter from my people at Watford. They are hoping to see you when you make your visit to England this summer. By the way, when do you leave? Has Delarue arrived yet, or is he not coming at all?

'Please give my compliments to the President the next time you see him and say that I am much interested in all the work here.

'With kindest regards and many thanks for all

the many good turns you did me while staying in Alexandria, believe me, yours very truly,

'D. HARVEY ATTFIELD.'

Letter addressed to the President of the Council by the Director of the Quarantine Camp at Tor:—

'Sanitary, Maritime, and Quarantine Council of Egypt.
'No. 48.

Tor: June 25, 1894.

' Monsieur le Président,—I have the honour to inform you that on Friday last I and Dr. Attfield tried the two disinfecting stoves as repaired by the engineer and as fitted with electric bells which have been very skilfully adjusted by Dr. Attfield. These two stoves, worked by means of the new heating apparatus, were found capable of accomplishing the object for which they were designed. We proceeded to test them by filling them with pieces of old tents, and in the middle we put the three electric thermometers; after which the engineer allowed steam to circulate in the inner tubes in order to warm the air in the stoves and avoid condensation of the steam. Then he turned on the steam into the stoves themselves, and in five minutes the manometer showed a pressure of two atmospheres, and the electric bells had already begun ringing at a pressure of an atmosphere and a half. At this point we regulated the pressure to an atmosphere and a half for ten minutes, after which we let off the steam in order to drive out the layers of air surrounding the material, until the manometer fell to 0°. After this operation, which lasted three minutes, we again closed the escape valve of the steam, and opened that to the inside of the stoves; in three minutes the manometer showed a pressure of an atmosphere and a half, and at this moment the bells commenced to work. After five minutes we again let off the steam, and when the manometer had fallen to 0° we opened the stoves, leaving the material there a few moments to dry with the doors partly open.

'The results obtained were as follows:—Material, dry; temperature in the centre of the material, indicated by the maximum C thermometer placed there, 110°. Duration of the whole operation, viz. charging the stoves, closing, &c., &c., forty minutes.

'The new heating apparatus worked both stoves at the same time with perfect regularity, and uninterruptedly during the whole of the operation. The electric bells also worked well.

'We can in consequence conclude that with our apparatus we shall be able to carry out a complete and rigorous disinfection if need arises.

'We have not yet been able to experiment with the third stove, which will be worked by the old heating apparatus, as, although repaired, the electric battery is wanting; but Dr. Attfield is engaged in fitting one up, and I hope soon to be in a position to communicate to you a result as good as for the two first.

'I take this opportunity, Monsieur le Président, of informing you that for some days our camp has been ready for the reception of pilgrims.

'Six sections are now ready as well as the hospital, and the Pharmacy has been put in good order by the care of Dr. Attfield.

'I have especially taken all necessary precautions

to insure the disinfection of the closets. For this purpose I have instructed the three attendants charged with the supervision of the sections in the preparation of milk of lime; and I have appointed two officials for each section to undertake the frequent disinfection of the closets; placing them within easy reach and furnished with all necessaries for this operation, and I hope that by means of this organisation, order and cleanliness in the sections will be thoroughly maintained during the whole duration of the quarantine.—Accept, &c., the Director,

(Signed) 'Dr. Zachariadis.'

Received at Alexandria: June 27, 1894.

'The President, (Signed) 'W. F. MIÉVILLE.'

MECCA WORK ENDS.

Tuesday, July 3.—To-day the last of the Mecca pilgrims left, and until the arrival of the Medina pilgrims from Port Yambo, in the course of some ten or twelve days, there will be but little to do. Therefore, having obtained a week's leave from Zachariadis, who is senior to me, I have organised an excursion to Mount Sinai. A full account of the trip must be reserved for a separate article, but I will at once give brief notes as to the places reached, times occupied, &c., thus enabling the folks at home to follow my route on their duplicate Admiralty map: but all general descriptions of people, places, and scenery, and all details, will be treated in a separate paper.

HOLIDAYS ON SINAL.

At 2.30 p.m. left Tor, accompanied by the Greek interpreter Caloumenos, a native guide, and two other natives as camel drivers. To carry our baggage and ourselves we had three camels. We travelled about fifteen miles almost due east over the gradually rising desert till the foothills were reached and camp made at seven o'clock.

STARS FOR CANOPY.

At 9 p.m., after a good meal and a pipe, I laid me down in the sand, only scraping out a hole for my hip; and, with the stars for a canopy, was soon deep in a single dreamless and unbroken sleep.

Wednesday, July 4.—Awoke at four o'clock, and having had a light breakfast, was on the march at half-past four. Our road lay through a most glorious cañon or valley-gorge, in some places quite an eastern 'eye of a needle,' leading right into the heart of the mountains. About ten miles up this cañon, which is called 'Wadi Islih' (wadi means valley) we stopped for dinner by the side of running water, a fluid of which there is, unfortunately, very little in these mountains at this time of year.

Mountaineering on Camels.

Resuming our journey up Wadi Islih, and having passed the junctions of 'Wadi Rimhan' and 'Wadi Eth Thebt,' continually ascending and passing grand

defiles, we went through 'Wadi Turfah,' and at 6.30 reached 'Wadi Rahabeh,' where the night was passed at an elevation of 5,000 feet. Towards morning it was rather cold, for we were high up, but not more chilly than to induce one to pull one's blanket a little closer.

Thursday, July 5.—Left camp at 5.30 a.m. Experienced a little nose-bleeding, due, presumably, to the diminished pressure at this altitude. About nine o'clock reached our highest point. Here the dear old pocket aneroid barometer, which has been with one or other member of the family over much of Europe and America, showed we had ascended over 5,500 feet since we had left Tor.

It was rather odd to find camels, which one associates with the flat sands of the desert and with levels little above that of the sea, carrying us and our baggage over steep and rocky passes far higher than even the summits—to say nothing of the passes—of the highest mountains of Great Britain—Snowdon, little over 3,000 feet; Ben Nevis, little over 4,000; our present camel pass, 5,500 feet. And, indeed, only this Wadi Islih and the Wadi Hebran, many miles north, by which we shall return, are usually traversed by camels. Palms were frequent, and now and then a sturdy tamarisk afforded shelter; groups of tall yellow-stalked reeds, too, were met with.

IN A CONVENT.

Mount Sinai, and the convent in the distance, were now in view. At half-past ten this fortress-like monastery was reached. Here we were hospitably

received by the brethren, as well as by the Archbishop of Alexandria, who is head of all the Archimandrites, and who, it will be remembered, was very kind to me at Tor, and on the voyage there, being so good as to invite me to join him at this most historically interesting of all monasteries on this most historically interesting of all mountains. The afternoon was devoted to visiting places of interest within the walls, and in a stroll through the extensive gardens of the monastery.

Friday, July 6.—Most of the morning spent in the convent chapel, which, of its sort, is very beautiful, and contains a large number of interesting pictures, &c. In the afternoon, accompanied by one of the priests, a Greek sailor, and two Arab porters, started to climb Mount Sinai.

ON SINAI'S SUMMIT.

The summit of this Jebel-el-Túr, that is, mountain of mountains, the world-famed Mountain of the Law, was reached soon after five; and until the sun set, about seven o'clock, a glorious prospect of wild rugged peaks and ridges charmed our eyes. We then descended to a little chapel, some 1,000 feet below the peak, where we supped, and where afterwards we slept.

Saturday, July 7.—After a somewhat restless night got up at four o'clock and reascended to the summit to see the sun rise. It was an indescribably grand and wonderful sight, rendered still more striking by shutting one's eyes and mentally glancing back nearly 4,000 years to that exodus from Egypt, those wanderings and campings in the desert, and that final settle-

ment in Canaan, which can nowhere be so well pictured, and the asserted area of so much of which can nowhere be so well seen, as from the mountain peaks on and near that on which I stood. For the Sinaitic ridge commands views of those two horns of the Red Sea now known as the Gulf of Suez and the Gulf of Akaba, the head of one of which saw the slavery, the head of the other the freedom, of those Israelites whose loves and labours within one short half-century have ever since so profoundly affected the destinies of Jew and Christian, and through them the whole subsequent history of the human race.

'TABLES OF STONE.'

From the 'tables of stone' lying around, a 25-lbs. slab of granite was selected, in accordance with a promise to pater, 'to be sent home, and to be there polished and marked with names and date in commemoration of the visit.' It is a piece of the self-same granite on which Moses, if tradition be true, engraved that decalogue which has given so much civil and religious law to the major portion of mankind.

Owing to badly-blistered feet, abandoned a projected ascent of 'Jebel Katrina,' which is slightly higher than 'Jebel Musa' (Sinai), and the highest peak in the peninsula, and returned to the convent, which was reached at 8.30 a.m. Had a good sleep of four hours, and spent the rest of the day in the library, where, I we assured, are some of the rarest and most cherished manuscripts in the world, and where, also, I found a copy of the 'British Survey of the Sinaitic

Peninsula, 1867-8' (4 vols.), that was very interesting to me personally, for it included the geology and botany, as well as history, of the peninsula. Many photographs also.

OLDEST MS. OF NEW TESTAMENT.

This was the convent in which, in 1844, Tischendorf discovered what is probably the oldest manuscript of the New Testament in existence. In editing the valuable edition of the 'Authorised Version' of the New Testament that forms the 1,000th volume of the celebrated 'Tauchnitz Collection' of British and American authors, Tischendorf gives, in footnotes, the variations from that version afforded by the three most celebrated manuscripts of the original Greek text; the letters S, V, and A denoting the respective three manuscripts, namely, Sinaitic, Vatican, and Alexandrine. The tale runs that Tischendorf first brought away some loose leaves that the monks were about to destroy, and that on finding their value he endeavoured to obtain the remainder, but that the monks, on learning that they had a precious treasure. refused to part with it. Only by the intervention of the Emperor of Russia was Tischendorf successful, in 1859. The entire Codex was published in grand form under the orders of the Emperor in 1862, and in a portable form in 1863 and 1865. My readers who possess the Tauchnitz edition of 1869 (2s. 6d.; Sampson Low, Son & Marston, London) will find an interesting history of the respective manuscripts in the 'Introduction.'

Sunday, July 8.—On the Survey mentioned yester-day was apparently founded the shaded engraving of the Sinaitic mountains and valleys on the excellent Admiralty Chart of the Gulf of Suez (1873, 3s. 6d.), which I have with me, and a duplicate of which is in the library at home. It is on a scale of over four miles to an inch, and includes every mountain ('jebel'), valley ('wadi'), the 'convent' itself, the 'running water,' near which we fed or slept en route, and a dotted line showing our track and the quite different and longer track by which we return. All the places I have mentioned or shall mention are named on it. The folks at home will thus be able to fairly well follow my movements in this holiday week.

The morning was devoted to an interesting excursion in the neighbourhood of the monastery, and equally interesting scenes and conversations within its walls. Parties of Greek Church pilgrims, I find, not infrequently visit the monastery, and ascend Sinai and Jebel Katharina to worship the spirit of Moses and Saint Katharine respectively. At 3.45, after a most happy stay of three days, we left its hospitable roof.

SACRILEGE?

Mount Sinai offered the earliest opportunity of trying the power of the double-barrel gun my father gave me as a parting present. The first shot was for testing; with the second was brought down a raven on the wing, and a similar 'dead hit' followed the third. I rather think that some of my friends in the monastery envied me the possession of so perfect a weapon.

As regards the larger game, there is in the whole Sinaitic peninsula little to be had for passing sportsmen. I had been told that I might, perhaps, catch a glimpse of a Jaal goat or an Abyssinian ibex (Capranubiana), sometimes termed the beden or jaela, but that the most ardent and wealthy hunter, aided by knowing natives, must not expect to kill more than two in a week; and that leopards were still more scarce. Such animals must have decreased in numbers since Esau's time. A few partridges were to be had, but were difficult to find.

I could not altogether understand the monastic life on Sinai. It seemed to be largely one of pure contemplation.

THE CAMP OF ISRAEL.

About an hour after leaving the convent the plain of al-Rahe was passed, one of the places where it is asserted the children of Israel camped. If in the camp there really were the oft-stated '600,000' warriors, there would be at least two millions of persons, besides cattle. I do not see how this number could have found food in such an area. Either the estimate was overdrawn or the camp was elsewhere.

Thence we proceeded down the Wadi Nagh Hawa, at the end of which our camp for the night was pitched. Our resting-place was quite close to a Bedouin cemetery, but we were neither troubled by the wandering ghosts of departed Arabs nor relieved of our cherished belongings by their descendants.

It appears that there are only some four or five thousands of Bedouins in the whole peninsula, and that they all are of the Toward (a word derived from Tor or Tur, mountain) group of tribes. They feed and breed sheep and goats in the higher valleys.

Monday, July 9.—To-day has been most fatiguing. A start was made at 5.30 a.m., and we did not rest until eleven. After two hours for lunch and a little siesta, went on without stopping until five p.m., when we came to 'running water.' Finding a nice pool, I sent on the cavalcade, and then had a most enjoyable bath. Our route to-day has included the long Wadi Solaf; across the range at a point between Jebel Watayelt (4,320 feet) and Tarbush (6,850 feet); and so down Wadi Ithmet and Wadi Hebran, at the debouchment of which into the desert, soon after reaching the 'running water,' we camped for the night.

TOR ONCE MORE.

Tuesday, July 10.—Left Wadi Hebran at 5 a.m. for the fifteen miles or so straight across the desert, S.S.W. by S., for Tor. Soon after 10 a.m. a plantation of date palms and an Arab garden, with a well of good water, was reached, where we camped for lunch and a rest. At 2 p.m. the last start was made, and Tor was reached without incident by 3.30. We were welcomed by Zachariadis and several other friends with open arms. Was glad to find letters and journals which had arrived during my absence. They were dated from June 19 to June 25. Thanks many to all the writers for such welcome missives.

So ends one of the most delightful week's holiday I have ever had; one in which there has been an

ever-changing succession of scenes intimately associated either with history, fable, legend, or romance. It was impossible, from what we heard on all sides, to avoid the conclusion that the Bedouins have numerous legends, passed on from father to son for many centuries, resembling the stories of the Old Testament. Perhaps Oriental scholars will some day find out for us whence they came.

Maps and Photographs.

Maps.—In accordance with the wishes of the three circles of readers of this journal I have arranged that Watford, Mistley, and Hadley shall each be provided with maps showing the areas of my professional labours and of my more personal pleasures.

Herewith I send a pencilled sketch or plan of our camp, on a scale of which five inches represent one English mile. Each of the three copies of it will explain itself, thanks to the pen and brush of my younger sister. Her skill will also produce a coloured map [facing page x] showing our own quarantine area from Suez downwards to Mecca and Medina; including just the sea-track of pilgrims upwards from the Persian Gulf, and from India to the holy cities, and embracing Alexandria and Cairo, Suez and Moses' Wells, Tor and Sinai, Medina and its port of Yambo, Mecca and its port of Jeddah—Jedda, or Jiddah.

With the pilgrims from Persia, India, and beyond, we have nothing to do; the ships here go and come northwards of the holy cities, along the northern half of the Red Sea; the others come and go southwards, along the southern half of the Red Sea, though,

it is to be hoped, their pilgrims will sooner or later be dealt with by the combined Powers, on a quarantine system similar to ours, somewhere this side of Aden.

I may add that if the entrance of cholera, &c., to Europe through Russia were similarly dealt with by that Power we should really begin to expect that this fearful visitant might some day be stamped out altogether.

Perhaps my father will also be good enough to supply for each of the three copies of my Journal a third map, namely, the piece of the Admiralty Chart of the Gulf of Suez that includes Tor and Sinai and my routes to and from the convent, with the hills. valleys, and chief camping oases plainly named—in fact a portion of the admirable map to which I alluded on July 8.

Photographs.—I venture further to ask my father not only to supply the three maps but also a set of ten photographs of Mount Sinai (Jebel Musa) and of the convent to each of the three type-written copies of my Journal and to send a set to me. They are published at Her Majesty's Stationery Office, separately from the Ordnance Survey volumes to which I alluded on July 7. From the specimens I saw in the library of 'St. Katharine's' (the convent on Mount Sinai) I am sure the three home circles will be glad to accept these photographs on account of their inherent interest as well as, perhaps, for their association with myself. (Ordnance Survey of Sinai, Eyre & Spottiswoode. Photographs Vol. i. Nos. 23, 24, 25, 27, 28, 30, 31, 35, 43; and Vol. ii. No. 3. Total, 10.)

The sterility of this religionary and rocky range;

the effect, on a western eye, of the massive walled monastery, within and without; and some idea of the stern beauty of the Sinaitic district, will be thus better conveyed than by any description I could pen. I will, however, as I said, in due time do my best to give my friends an article on 'Sinai today' as well as one on 'Purifying the Pilgrims.'

I am in excellent health and spirits, and have increased six pounds in weight since leaving England two months ago.

MEDINA WORK BEGINS.

Wednesday, July 11.—Mr. Richards, the British Consul of Jeddah, visited us to-day and we returned on board with him to dine. His ship is the Narguileh, the vessel that brought us to Tor from Suez. She had picked up some 250 pilgrims who were late at Jeddah. After dinner we had a sing-song on deck. I also had a very pleasant chat with the Consul. One has to be away from one's country for some time in order to know the pleasure of speaking one's own tongue with a well-informed fellow-countryman.

Thursday, July 12.—After seeing the pilgrims off went on board the Narguileh to give them the bill of health after their three days of quarantine, and to say good-bye to Richards, who is a very good fellow.

A Moslem Fête.

At night there was a great Moslem fête among our employés in honour of one of their saints. In front of the little mosque at Tor an enclosure had been formed with tent poles and ropes, and a large chandelier for candles fixed up on a post near the centre. The whole place was prettily decorated with palm leaves, gay streamers, and quarantine flags. Our flag, I may here say, is the Egyptian ensign with the addition in the upper left corner of a square of bright yellow. The ground of the ensign is scarlet, with a crescent and star in white. Soon after 8 p.m. we heard the sound of the tom-toms, and accordingly went out to see the procession. In all there were some 300 processionists, including nearly two hundred of our own employés and some sixty or seventy of the soldiers. Between the mosque and the enclosure a daïs had been built for the 'upper ten' of Tor. Here were places for Zachariadis and the writer, the Governor, the Commandant,

> With a great many more of lesser degree, In sooth a goodly companie,

as Thomas Ingoldsby has it. In the mean time the more holy of the Moslems had entered the mosque and were loudly uttering prayers. While these special prayers were proceeding the worshippers outside had sat down in parallel lines facing each other, and cups of an infusion of cinnamon bark were handed round to everybody present. After this the general ceremonies commenced with the reading of the first chapter of the Koran, which was repeated word for word by the whole assembly still sitting. Then all rose to their feet and, following the lead of the chief man, they commenced a species of calisthenic exercise; waving their bodies backwards and forwards and from side to side, at the same time

shouting 'Allâh Allâh.' The time and method of saying 'Allâh' was altered at intervals. As the time wore on they became more and more excited, and with the excitement so the movements and the exclamations of 'Allâh Allâh' increased in violence. The movements consisted chiefly of a twisting of the body from the hips upwards and side to side, the head being jerked violently in the same direction. These motions were accompanied by much clapping of hands and beating of tom-toms. Several of the men dropped down from sheer exhaustion, but the powers of endurance of the majority were really astonishing, and were no doubt akin to the extraordinary maintenance of force sometimes shown by subjects under the influence of mesmerism. It is most probable that hypnotism would largely explain the whole proceedings, which lasted until twelve o'clock. As for the true raison d'être of the flexuous contortions and gyrations, well, it may only be un être de raison. But I believe that some Christian 'revivals,' so called, are prolonged to late hours and are accompanied by physical prostration and exhaustion of the stricken persons present. And we have all heard of the French, English, and American Christian 'Shakers,' and of the performances of Miriam and of rejoicing 'in the dance, both young men and old together,' and of David who 'danced before the Lord with all his might.' 'Those who live in glass houses must not throw stones.' At ten o'clock Zachariadis and I said 'enough,' and retired to bed, though, on account of the noise, sleep was impossible.

Friday, July 13.—To-day there have been several

complaints made against the behaviour of certain of the military. We are continually having these little bêtises to settle. They are partly due to the everexisting jealousies between the civil and military authorities, partly to incompetency somewhere, partly also to insufficiency in the present number of soldiers to carry out our desires respecting the true efficiency of quarantine service.

EGYPTIAN SPORTS.

In the afternoon all Tor visited the military quarters to witness some athletic sports got up by our Egyptian soldiers. To an Englishman it was rather gratifying, on the principle that imitation is the sincerest flattery, to watch the various 'events,' for they were good copies of those to be found at any English meeting. In addition to the latter there were several of a more humorous nature, among which were donkey races and several blindfold competitions. To end the proceedings there was a war dance, performed by a company of native irregular soldiers, consisting for the most part in waving swords and firing guns, much clapping of hands, shouting, and hopping round the enclosure in procession.

EGYPTIAN FLIES.

To-night it is extraordinarily damp and everything is quite moist; a rare state of things at Tor. The mosquitoes are getting troublesome, as, too, are the flies. The latter, thank goodness, imitate their

human victims and apparently sleep at night. As a rule one sleeps without the 'moustiquaires,' as the mosquito curtains are termed, until the flies wake up, about 4 a.m., when it becomes necessary to pull the curtains down in order to obtain another hour or so of rest. The Egyptian fly is a most persistent and powerful pest; a blow that would kill an English fly is simply buzzed at by the wily Egyptian, who just shakes his lissom wings and returns to the attack. During the afternoon it is impossible to sit quiet and read unless one is provided with a 'menasheh' or fly-whip to drive the winged torments away for the time. A 'menasheh' is a bundle of long horsehairs or of thin strips of palmleaf, of which the farther ends are loose and the other ends attached to a handle. You make vigorous swishes with this instrument from side to side.

Saturday, July 14.—The humidity mentioned last night is continued to-day. It is extraordinary. On waking up at 5 a.m. the floor of my bedroom was quite moist; indeed, it looked as if it had just been washed. The index of our hair hygrometer has gone off its head altogether, the scale being unable to cope with the extreme moisture. Such dampness is almost unheard of in Tor, and, it need hardly be said, is unhealthy.

RED SEA SHELLS AND CORALS.

The sea being unusually smooth this afternoon, I organised a coral-hunting expedition to one of the outlying reefs. After half an hour's pull we arrived at the reef in question and, having stripped, got into

about three feet of water. With the aid of a crowbar and my long geological hammer, we soon obtained a collection of pretty specimens. The pleasure of finding these lovely corals and shells was somewhat marred by the fear of attack by a cuttle-fish or devilfish (Octopus vulgaris), a sting-ray (not the electric ray), or a small shark, at any moment. The other day we had devil-fish for dinner. Their meat is not bad, but their appearance is truly hideous. The sting-ray has on the tail one or more cockspur-like spines, with which it inflicts a wound peculiarly liable to fester and so to poison the victim.

Sunday, July 15.—St. Swithin's Day. If in England just now there is weather like that we have here, then, according to the old legend, a fine summer ought to be assured. It is glorious. I am devoting much of the day to my Journal, as will be seen immediately.

CHARACTER.

COVENANT, CROSS, CRESCENT.

NATURE.

Before leaving this most ancient of all religionary regions, my friends will, I find, be expecting me to say something about the ethical character of those around me. How, under the shadow of Sinai, does the religion, and therefore the chief springs of the character of these Greeks and Moslems influence their daily life? I answer by a truism, namely, 'human nature is human nature all the world over.' A very few weeks of experience shows a casual onlooker like myself that the inner characters of Greek, Roman, or Protestant Christian differ by scarcely a

shade. The Christian character must of necessity largely be a mere evolutionary product of the Jewish, the characters of the followers of Mohammedanism or Islâm (a word meaning 'resignation') being a tripartite sixth century product (Mahomet or Mohammed was born A.D. 571 at Mecca, and died A.D. 632 at Medina) of Judaism, Christianity, and a cult perhaps older than either. 'Character,' to quote my father, 'is the outcome of our relationship to the Unseen and of our conduct towards one another,' and that relationship and conduct are, doubtless, pretty much the same in Asia and Africa as in Europe, America, or Australasia. I will not venture on more than a couple of paragraphs respecting this matter.

The opening chapter of the Koran, or Qur'an, to which I alluded last Thursday as being repeated by all the Moslems, or Muslims, at the celebration on that day, is a prayer for guidance, and runs as follows:—'In the name of the merciful and compassionate God. Praise belongs to God, the Lord of the worlds, the merciful, the compassionate, the ruler of the day of judgment! Thee we serve and Thee we ask for aid. Guide us in the right path, the path of those Thou art gracious to; not of those Thou art wroth with; nor of those who err.' This petition of the Islâm religion is sufficiently excellent. Few rubrics could offer a much better prayer for direction than that. It is when one comes to look at 'the right path' the Moslems so earnestly say they desire to follow that one finds that Easterns are not more sincere, or, at all events, not more consistent, than some Westerns. I find that as with Jew and Christian so

with Moslem: preacher and congregation may proclaim one thing while as neighbours or members of 'society' they may practise another; the religion of church. chapel, mosque, or other temple or tabernacle, is one thing, the character or conduct of a community is liable to be quite another. Everybody professes 'to love the Lord with his might and his neighbour as himself,' but who really does so, in the East or the West? The 'religion' we all talk about seems often to be little else than mere book-religion, or, at best, a more or less lofty idealism. I find that in the East as in the West there is plenty of good in persons themselves; their character, or that of most of them, is good, if you once get inside their surroundings, say, into their family circle—and medical men gain such an entrance in every country. It is in that loving of your neighbours, the folks who form your 'society,' where not love but the absence of it becomes so conspicuous. It is in that loving your neighbours as yourselves where the profession often becomes so divergent from the practice of our religions, one and all.

I cannot but think that even in the slowly changing East, into which steam, photography, telegraphy, the coal-tar dyes, and other applications of the truths and powers of Nature (which is only the working of the will of their Allâh) are penetrating, and certainly in the West—I say it would seem that everywhere much-cherished Tradition is slowly getting weaker as a source of beliefs, while Dame Nature is slowly getting stronger. And there is, perhaps, some comfort in this. Nature never refuses to unveil her truths

to the truthful student, be he student of her stars, her earth, her animals, her plants, or her physical and chemical forces. Moreover she, utterly unlike tradition, never has to take refuge in a demand for faith. 'Prove all things; hold fast to that which is good,' is the motto she offers for our guidance. Under her, men not only 'despise not prophesyings.' but become prophets themselves. Far be it from me to preach to others; but here at all events is comfort for some of us. Everything seems to be coming right, though so slowly, perhaps the more safely because slowly. Anyway, the inference is for me irresistible that the religion of demonstrable truth as taught by Nature is slowly displacing the religion of dogma as taught by tradition; and that taken with the growth of goodness in the individual and in the family circle, which already largely exists, this slowly progressive domination of Nature will result in improved character to all of us; will result in the profession and the practice of religion (especially towards our neighbours and 'society'), becoming as consistent and harmonious as they now are inconsistent and divergent. Not anarchy, nor so-called socialism, but the ever-growing and ever-successful search for the truths of Nature will slowly but certainly displace mere tradition quâ tradition, assimilating what is truthful, eliminating the erroneous; and so will be established a firm foundation for the needs and aspirations of the world-wide human race. No existing religion, not even the best, namely, our own Christianity, has hitherto succeeded in its mission of universal binding—for the word 'religion' is derived

from ligo, I bind. Nature alone can and does bind us. That is what we all, sooner or later, must realise, for Nature is paramount and inexorable.

The views in the foregoing two paragraphs respecting character and the springs of character are perhaps scarcely my own, but, rather, the evolution in a son of the teachings of a father. To quote my respected parent's oft-uttered words, 'I do not feel that I know much about the matter.' But who does? And he writes me as follows:—

'It would seem that to find out the principles under which man everywhere is ruled, we must study not only what our forefathers are said to have said about the rulings, but the rulings themselves. Patient, laborious, and accurate examinations of our surroundings—material, mental, psychical—and full publication of the results of those examinations for criticism by others, appear to afford the only mode of ascertaining all that is ascertainable respecting the springs or sources of those surroundings; at all events the only mode of reaching conclusions acceptable to, because verifiable by, all communities alike, East, West, North, South. There can only be one true religion, that is to say, one true relationship of ourselves to our origin and government, one true relationship of "Man and his Maker." The present religious of the world are too hopelessly divergent ever to coalesce of themselves; they will probably rather melt into one religion by some slow process of fusion external to themselves, as felspar, mica, and quartz melt into granite. The channel through which such a binding will slowly come about, or such a "revelation," if you like that word better, will probably be that through which the world is now daily acquiring more truth, truth upon truth, grain upon grain of an ultimate granitic backbone of sound knowledge and of ethical character—the channel of Nature. Each of the existing religions claims for itself sole traditional revelation. The traditions not founded on truth will pass away; those founded on truth will survive and will become part of the truth, particle upon particle of which is being revealed from day to day. Slowly Nature is teaching us all we can know, whether of the material, the mental, or even the psychical. Do not interfere with any good old person's faith; but if any inquiring young Moslem really exhibits an open mind, tell him that Nature, manifested not more in her visible handiwork than in her invisible forces, at least corresponds with his definition of an Allâh, namely, "eternal and everlasting, one and indivisible, not indued with form nor circumscribed by limit or measure; comprehending all things, but comprehended of nothing." (See Max Müller's, or, rather, Palmer's "Introduction to the Qur'ân," page lxvi.) You can even tell him, if you like, that Christians are the most laborious and successful of the interpreters of Nature, as well as, according to your experience (vide D. H. A. to Dr. M., June 29, p. 75), more humane than Moslems; for eight Christian neighbours in a tent would not let one of their number suffer hunger and pain without offering to supply his needs, even though certain of his impending happy translation. But use comparisons carefully, or he will remind you that Christianity is not the one religion of Nature, as evidenced by that disagreement amongst ourselves which produces Roman, Greek, Protestant, and I know not how many more different churches. Rather offer him this paraphrase of a well-known couplet on character:—'

'Let us, my son, be good; And let who will be wise.'

That is all I care to say respecting the ethical character or the springs of character of those around me. 'Familiarity breeds indifference,' not contempt. Individuals and communities living within a few scores of miles of that Sinai whence, as we have been assured, sprang the religion of the Covenant are no better, and no worse, than individuals and communities located at greater distances from that interesting region of truthful as well as problematical history—a region of questionable as well as unquestionable tradition; a region of the legendary and the fabulous, as, doubtless, of the romance of those who lived and loved before as well as after history began. [Continued on page 116.]

THE 'POLYGLOT CREW.'

Monday, July 16.—Yesterday evening our little Mademoiselle Baldini, whom I mentioned before, celebrated her birthday by giving a large dinner-party to all the European quarantine officials. We were twenty in number, and had a very jovial time. Eight different nationalities were represented, namely, English, French, German, Greek, Italian, Austrian, Indian, and Arab. As I said on June 4, we are a

polyglot crew. After dinner music (banjo and accordion), song, and speech sustained the party in mirth and enjoyment until near midnight.

NEPTUNE'S CLAIMS.

This afternoon I went over to the camp and took photographs of the commandant, Husni Bey, and his staff, as well as one of the company in review order. Afterwards Husni—'Bimbashee' is the name of his rank, which corresponds to that of the British major —and two of his officers had a sail in my boat. It was the first time they had ever been on the sea, excepting the voyage from Suez, and very soon the captain became sea-sick and had to be landed. The major and his lieutenant were much amused and chaffed the poor captain terribly. But they were laughing too soon, for on the next tack we went outside the inner harbour into rougher water. It was amusing to watch the change that came over their faces as Neptune began to assert his claims. On returning, the captain, who had recovered, had the laugh at his two fellow-officers. But, somehow, they all three refused my invitation to come sailing again to-morrow.

It is rather odd that since leaving England I have had no qualm of mal de mer, yet have never had so much sailing or been on such rough seas.

Moses' Hot Baths.

Tuesday, July 17.—Up at 4.30 this morning. After a light breakfast rode with Zachariadis to

the hot springs, termed 'Moses' Hot Baths,' which are situated about three or four miles to the northwest. The first two miles or so are across a salt marsh, which gets hard from the sun's heat in the daytime, but during the night becomes again soft and marshy. The sunrise over Jebel Shommer was particularly fine. Soon we reached the extensive date plantations of the convent, and there, owing to the roughness of the succeeding road, we left our donkeys and went on foot the rest of the way, under the crags and precipices of a mountain called Jebel Hammum. There were quite a number of hawks flying about, but they seemed to recognise that I had my 'double hammerless' gun and wisely kept out of range. The bath was reached soon afterwards. It is situated in some tumbledown bungalow buildings that were set up by Abbas I., Pasha of Egypt, who used to make regular trips to visit this spring. The bath itself is about fourteen feet square, and about four feet deep. It is partly natural, partly artificial. The water enters at one corner from a fissure in the natural rock, asserted by the Bedouins to have been opened by a blow from Moses' rod when he fled from the face of Pharaoh to the land of Midian. The water has a temperature of 98° F. I enjoyed a dip in it, but was unable to detect any evidence of it being the sulphurous spring that I had been informed it was. In the neighbourhood, however, there is a well, the water of which has a distinctly sulphurous odour.

¹ See Burton's Pilgrimage to Al-Madinah and Mecca in 1853, vol. i., p. 200.

Returning we called on the priest in charge of the date plantation and had acceptable coffee and the inevitable mastic. This date plantation covers an area of many acres. A forest of palms such as is here is to an Englishman a novel and beautiful sight.

WORK AND PLAY.

On reaching Tor we went to the Magazine and made a trial of one of the disinfecting stoves which had been slightly altered, and found that it now worked well.

At midday we gave quite a grand luncheon to the Bimbashee and the Maamour.

Towards evening, while sailing in the Brazilian with Zachariadis, an accident occurred which might have had serious results. When running before the wind, which was very strong at the time, the rudder was carried away, and until a steering oar could be got out we were in a rather awkward position. Fortunately we were not near any of the reefs which are so numerous in these parts.

Wednesday, July 18.—We have several of our staff down with minor accidents and ailments. After visiting them at the hospital this morning, accompanied by Zachariadis, we went to the monastery garden and had a real feast of fruit—figs, peaches, grapes, almonds—all picked before our eyes. The figs were of very fine flavour, but our English peaches and grapes are superior to theirs.

Camel-post arrived after dinner bringing letters from home, Barnfield and Blackheath, dating from

June 28 to July 4. As a check I will for a few months give the despatch-date of every letter I receive.

This evening we had dinner on the jetty, with the glorious full moon for a lamp.

DEEP-SEA FISHING.

Thursday, July 19.—Usual routine work to-day. At seven this evening Zachariadis and Baldini and the writer started on a deep-sea fishing excursion. We took one of the big native boats—'ketirehs' as they are called—and had dinner on board while we were sailing to the fishing-ground. On arrival we soon got out our lines, and in a short time had caught several fish varying in size from about two to five pounds in weight. I had one very large and beautiful fish on my line, which, however, proved too weak to stand the strain, for he got away with the hook and about thirty feet of cord. Poor fish! Poor fisherman! Zachariadis, who is not a very good sailor, now began to be ill, and so we had to return, much against the inclinations of Baldini and myself.

Friday, July 20.—On examining our bills for the month we find that our cook has been feeding all his friends at our expense!

STALKING BOGIES.

There was a rumour to-day that hyenas had been desecrating the graves at our cemetery, and also that they had killed some sheep. Accordingly, having borrowed a couple of Martini-Henry rifles and some

ammunition, I took Goodwin, the English guard, and set out about eight o'clock with the intention of passing the night at the cemetery in the hope of getting a shot at an hyæna. We took a native with us to bring back the donkeys. The poor superstitious fellow turned a greyish colour when he was told what he had to do, and it was only by means of alternately threatening a dose of 'kourbash' and promising a liberal 'backsheesh' that he was prevailed on to accompany us. The cemetery is about two and a half miles from the town. We watched there till half an hour after midnight without hearing or seeing anything suspicious. About that time we had a false alarm and carefully 'stalked' an object that turned out to be nothing more terrible than a big old tin pot. I then had a sleep for two hours, leaving Goodwin to watch. About 2.30 a.m. he called me and reported all quiet. He now turned in, and I took the watch. As before, nothing happened; and, dawn coming on, I called Goodwin. We walked back to the hospital, and, mounting our donkeys, returned empty-handed to Tor. Not even a ghost of an hyæna or of any other animal, higher or lower, had the lonely desert cemetery afforded us.

Saturday, July 21.—The post-boat arrived this morning. There were letters for me from mother, grandma, and May, dating round July 8. I was so delighted to have them. Zachariadis was much disappointed with his correspondence, for the illness of his wife and children prevent them from coming to him as expected. The Austrian Lloyd steamer Calypso, with a thousand Medina pilgrims, arrived to-day.

In response to many inquiries from England, I am glad to report continued excellent health, not-withstanding somewhat high temperatures. Apparently no more salubrious spot than Tor could have been chosen by the Conseil for a pilgrim quarantine encampment.

A DESERT GARDEN.

Sunday, July 22.—On board the Zagazig, which arrived this morning with some 700 pilgrims, was the French Consul of Jeddah. We took him to see our sections and hospital, and afterwards to visit the monastery garden, where he had a feast of fruit, including delicious grapes, peaches, and figs. If possible he was more astonished than I had been at the sight of such fine fruit in the midst of a bare sandy desert.

BÉTISES.

We have more complaints as to the conduct of the military, some of whom clearly are becoming more and more troublesome, irregular and unsoldierlike in behaviour.

Monday, July 23.—This morning had a long conference with the 'Bimbashee,' as the commandant of the troop is called, on the subject of the misbehaviour of certain of his men. He speaks English well, and he promised faithfully to see that work should be carried out more satisfactorily. He probably will do his best, good fellow, for I showed him the draft of a letter we shall send to the 'Conseil' if things do not improve, and he got a bit frightened at what

would be the probable consequences to some of his people of their further neglect of duties.

EDIBLE LIZARDS.

During the day a Bedouin brought in one of the large edible lizards (*Lacerta*) that are found in the mountains in these parts. Including the tail, it was nearly two feet in length.

Helfield, the polyglot, who has been my interpreter, has not turned out quite satisfactorily, and possibly will be sent back to Suez to-morrow, partly on account of his health and partly because we do not need him here.

MANY PILGRIMS.

Tuesday, July 24.—To-day has been one of my busiest at Tor. Three ships arrived and another was despatched. This means dealing with something like 4,000 pilgrims in twelve or fourteen hours, besides five hours of other work indirectly connected with the pilgrims. Moreover, a strong gale has been blowing all day, and, in consequence, the embarking and disembarking has been attended with considerable risk to both men and boats. With regard to the men, nothing more serious than several duckings occurred. With the boats we were less fortunate. One of the native 'ketirehs,' or 'sambocs,' as the large open boats are here called, becoming unmanageable, nearly cut my Brazilian whaleboat into halves while she was lying at the jetty. I fear she will not be worth mending.

SQUATTING.

During afternoon rounds had five o'clock tea of a most superior description with a Persian in one of the sections. It would have amused the people at home to have seen me squatting on my heels, à la Turc, on a most beautiful Persian carpet, in front of a tent, sipping a very high quality of tea from vessels resembling custard cups.

Toujours Bêtises.

There have been a series of bêtises to-day. The two most serious related to sales of goat-flesh as mutton, the former being much cheaper than the latter. There also have been serious charges against the soldiers. With regard to the alleged misconduct of the latter, it was necessary to make a surprise visit to the section at night. This I did at 10.30 p.m. On approaching the guard-tent I was annoyed to find that, against all orders, I (hence anybody) could enter the section unchallenged. So much for offence number one. At the far end of the section found two of the four sentries, supposed to be guarding the place, in a tent with some pilgrims; and in the next tent two other soldiers, who said they had 'come to see some relations among the pilgrims.' Having taken the names and numbers of these men, returned to Tor, and at once sought my couch and instantly forgot all passing annoyances.

BALMY SLEEP.

Never had I enjoyed a pillow softer or for such a few seconds, for I had been on busy legs from five in the morning till twelve at night. And never did Nature's sweet restorer keep more perfect or trustworthy guard over a healthier or happier man.

Wednesday, July 25.—Little of note occurred today beyond the holding of the Commission to inquire into the alleged sale of goat-flesh for mutton. This affair eventually ended in admission, and in a promise of 'not doing it again.'

In the afternoon the officers of the *Memphi* visited us and were taken round to see the lions of Tor. They gave us a cordial invitation to dine with them to-morrow evening.

THE BASTINADO.

Thursday, July 26.—This afternoon I witnessed what for an Englishman was a very strange scene, i.e. the administration of the bastinado. It appeared that a native had been caught ill-treating a boy—in fact, he had nearly gouged out the boy's eyes. The man had thereupon been brought up before the Governor and summarily sentenced to be bastinadoed—in other words, to receive a number of strokes on the soles of his feet. Zachariadis and I happened to be passing just as the sentence was about to be carried out. The prisoner lay on the ground. His hands having been tied together, and afterwards his feet, he was turned over on to his face and held down

by two sturdy natives. Then, with his legs bent upwards from the knees, and, hence, his feet in the air, a third native thrashed the bare soles of the feet with a long care. The allotted number of strokes having been given, the wretch was allowed to crawl away. He would, of course, be unable to stand up for some days to come.

At night Zachariadis and I went on board the *Memphi* to dine, and a first-rate dinner we had, including the great treat, to us, of iced drinks.

Friday, July 27.—Usual routine work. In the afternoon was visited by two of the engineers of the Khedivial steamer Missir. They were Englishmen, as are nearly all the engineers of this line of Egyptian steamers. Dined on board the Missir at night with two friends of Zachariadis who live in Suez, and have been down to Jeddah on business.

DESERT-ERS.

While enjoying our cigarettes on deck after dinner a boat came off with a message saying that some Bedawin had found two pilgrims in a state more dead than alive about a day's march from Tor, and had brought them to our office. We went ashore immediately, and at once started an investigation of the matter. It appeared that the two poor fellows had an absurd idea that they could walk to Suez, and, owing to the negligence of some of the sentries, had got away from a section at night and started on their 150-mile tramp. Within four-and-twenty hours they had drank all their water and certainly would

have perished from thirst if the Bedawin had not found them as above stated. An incident of this kind is entirely due to the bad service of some of the military. We intend to address a strong report on the subject to the central authority in Alexandria.

Saturday, July 28.—It really seems that we are not to have a day go by without some little excitement. This time we had to send our chief Arab guard back to Suez to prevent his getting lynched, for last night he committed an aggravated assault on a native.

I bought some rather pretty red-sea shells this morning from a diver, and on an opportunity occurring shall send them home.

A SCORPION.

Sunday, July 29.—During rounds to-day my donkey suddenly shied at something, which was soon discovered to be a large yellow scorpion. Having dismounted, and having had the luck to find an empty wide-mouthed tin case, succeeded after some trouble in 'bottling' the animal. The mouth of the can being closed with a handkerchief, the beauty was taken home, and there treated to a liberal dose of chloroform. By that means obtained a quite undamaged specimen, which has been preserved in alcohol. It is nearly four inches long. The sting inflicted by a scorpion of this size is said to be 'invariably fatal.' This is probably an exaggeration, though doubtless one's system would become much upset by the injected poisonous fluid. They have

claws or nippers like those of lobsters, and the sting is at the end of a lobster-like tail, which can, however, be smartly turned in any direction.

At night dined on board the *Missir* with the engineers, and, as it was a very hot night, gladly accepted an offer of a bed on deck.

WILL SHE WRECK?

Monday, July 30.—There was great excitement this morning. A ship was seen coming towards us on a very unusual course, a line that was almost certain to lead her on to the coral reefs. The natives were in a state of wild delight, for a wreck to them means plenty of plunder; indeed, it is said that they sacrifice a camel at times to their patron saint to endeavour to prevail on him to send them a shipwreck. Well, the ship came on and on, and eventually struck the 'Erg Riah' bank, about a mile from Tor. By good luck for her she struck where there was a small patch of sand, the only one in the neighbourhood. She was eventually got off almost uninjured. On visiting her we found the captain had mistaken his bearings; moreover, as he was not carrying pilgrims, there was no occasion for him to be near Tor. 'Allâh takes care of drunken men and of fools,' they say. Odd justice!

THE HOLY CARPET.

Tuesday, July 31.—To-day the ss. Mehahleh arrived, bringing with her the 'Mahmel,' or Holy

Carpet. On coming to an anchor she fired a salute; and a native band on board played something that was called music, but which to my ears was discord. Respecting the Holy Carpet—which, however, is no carpet at all, but a covering for the tomb of Mahomet—and respecting the various ceremonies observed in connection with it, a more detailed account shall appear some time hence in a separate article.

SIC TRANSIT.

Walking along the coast this evening with Zachariadis, we came on an old Arab cemetery, which is gradually being absorbed by the waves. In the cliff and at the bottom, washed by the sea, there are numerous well-bleached human remains—skulls, leg and arm bones, &c.; indeed, a student of osteology would soon be able to stock a museum. Sic transit gloria mundi.

From eight to ten this evening we had a very strong 'khamseen,' or hot blast. The temperature in our sitting-room, with all windows and doors open, was over 40° C., that is very nearly 105° F., and the air was as dry as a desert bone. But 'it is an ill wind that blows no good;' the water in our 'gourleys' or porous earthenware water-bottles, under the rapid evaporation at this temperature, became almost ice-cold.

Wednesday, August 1.—For a change there has been no excitement, no bêtise, nothing to adjudicate, nobody to punish; in fact, we have had a quiet day. During the morning a violent windstorm arose, the

sand being so driven in clouds that it was impossible to face the blast without some protection in the way of spectacles or a veil for the eyes.

Thursday, August 2.—Usual routine visits. Then a long typewriting job, namely, making a copy of my pharmacy and hospital inventory.

A CARPET CONCERT.

At night, in front of our office, a grand function was observed in honour of the 'Mahmel.' The place was much decorated with palm leaves and quarantine flags, and was illuminated by numerous candle-lanterns. About eight o'clock the two native bands arrived, and all the people of Tor and our employés formed a big circle of enthusiastic admirers of what the Arabs are pleased to term music. The one band was of the ordinary character, but the other consisted of only two species of instruments of torture, namely, tom-toms, and a pipe, which when strongly blown gives out a sound much worse than the most aggressive set of bagpipes. It is difficult to say which of the two 'musical' bodies was the worse. They 'played,' with short intervals, for three heavy hours. During the intervals, many beautiful rockets were fired. At the end of an hour or so, Zachariadis and I could stand the discord no longer, and bade adieu to the assembly.

Friday, August 3.—The Mehahleh left to-day with the 'Mahinel,' firing twenty-one guns as she passed out of the roads.

Went fishing this afternoon with Zachariadis with

a fair amount of success. Zachi, as I call the dear boy, seemed to get quite annoyed because the fish preferred my bait, my line hooking twenty while his was finding five. He will get the laugh of me some day.

More Welcome Letters.

Saturday, August 4.—The fortnightly mail is due to-day, and in consequence everyone is more or less excited. The Messir was reported in view soon after 6 a.m.; by seven we had boarded her, and soon after we received our very welcome letters. There were for me warm cousinly ones from Hadley, dated July 15, M. A. 15, G. A. 16, J. A. 24, and one from my old friend Arthur Manning, of the same date. Thanks, many thanks. Stayed on board for two or three hours, and fed with the engineers, who are very pleasant Englishmen. The first, by name Brewitt, gave me a Soudanese knife—a most murderous-looking weapon.

Sunday, August 5.—Much to Zachi's delight, Mrs. Zachariadis and her two children came by the Messir yesterday. They are staying in another wing of the convent, so I do not get enlivened by the children.

A poor neighbouring Bedouin comes to me for professional advice. He has advanced disease of the larynx. A physician can do little for him at Tor, or anywhere else for that matter. From what he says I gather that some of the music he finds so soothing, played very softly, will be the only admissible morphine for him when his time is ending.

CHARACTER.
COVENANT, CROSS, CRESCENT.
NATURE.

On Sunday, July 15, I gave two or three paragraphs about the inner character of the Moslems and of the Greek Christians by whom I am surrounded, and about religion as the chief source of character in the East as in the West. [See p. 94.] This has produced a demand amongst some of my friends for some complementary paragraphs on the same subject. Fortunately, the supply to the demand is at hand in the following extract from one of my father's letters:—

'As for the "loving your neighbour as yourself" principle, whether amongst Jews, Christians, Moslems, Brahmins, Pârsis, Buddhists, or others, it is truly a noble one; already it commonly exists between the members of families; is often apparent between relatives by blood or marriage under the name of "clannishness," and under the term "public spirit" sometimes cements the members of communities. course I hope, and I really think, that this principle will ultimately prevail, but in, I fear, a somewhat distant future. At present, the seeming nature of nations, and, in a lesser degree, of communities or clans, and, in a slight degree, of families, is to raise themselves by lowering their neighbours; that is, metaphorically, and often literally, to prey on one another. In fact, this sad state of things is generally admitted; and competition is given as the reason or excuse for it, especially in these days of over-population. For tradition has said, "Be fruitful and multiply and replenish the earth"; excellent ruling when replenishment was necessary. But the word "replenish" is suggestive of a prior "plenish," and the present growth of population points to a similar future "plenish." Tradition thus gives over the earth to man as the partially-taught dairyman abandons the Stilton cheese to mites. And, to begin with, all thrive; even the weak. But afterwards comes into action Nature's rule of "the survival of the fittest." The moment there is only food enough for one of two animals, the two will fight for its possession, the stronger of the two alone surviving. Until man has learnt from Nature that this earth cannot support more than a given number of human beings on a given area, he will continue to prey on his neighbour, directly or indirectly. Only when he takes care that the given number shall never be exceeded will he be in a position to love his neighbour as himself, for only then will the chief inducement to prey on his neighbour have been removed.

'On the question of the inner character of people and the growth of character in the right direction, there is just this to be said in favour of depending on Nature as our guide that cannot be said in favour of tradition, namely, that Nature is the same in all quarters of the globe, whereas tradition, and hence the religion which is founded on tradition, varies in every quarter of the globe. Each of us is born into the world as naked in mind as in body. Therefore, we simply grow up in the religious beliefs of those around us; consequently, the religion of 999 out of

every 1,000 of us is determined by geography, or, at all events, is an accident of race. Such religions cannot all be true, because, if for no other reason, true religion—perfect relationship to the Unseen must be universal and invariable. Now, Nature is universal and invariable, hence so far fulfils the prime demands of a real and true religion. I am inclined to think that already all the existing religions have been founded on Nature, their discordance being due to man's faulty readings of Nature. With the more accurate deciphering of Nature's handwriting, now being carried on by patient and truthful research, we shall, I trust, gradually also reach the true superstructural religion of Nature—the religion of Covenant, Cross, Crescent, and every other cult coalescing into the one religion of the universe—just as the obvious and clearly-marked felspar, mica, and quartz of the table of stone you have brought for me from the summit of "the holy mountain" have coalesced into one grand mass of red Sinaitic granite. Judged by the character and conduct, words and actions, of religious people East, West, North, and South, there is good in every one of the leading religions, but perfection in none. The perfect well-spring of character is yet to come. Perfection in religion will, like every other form of perfection, be a matter of evolution. So far as we can see at present, the channel through which this religious perfection will come to us is Nature, and Nature alone. As the felspar, mica, quartz, &c., have slowly bound or religoed (ligo, I bind) themselves into granite, as I said before, so will the religions of Sinai's Covenant,

of Calvary's Cross, of the Islâm Crescent, slowly religo, or bind, themselves up into one true universal religion.

'Respecting the inner essence, so to say, of Nature, and the right idea, so to say, of an Allâh or Almighty, possibly they are one and the same—an everlasting Omnipotent Omnipresent Beneficence. Thus Tennyson:—

The sun, the moon, the stars, the seas, the hills, and the plains, Are not these, O Soul, the Vision of Him who reigns? Is not the Vision He, tho' He be not that which He seems? Dreams are true while they last, and do we not live in dreams? Earth, these solid stars, this weight of body and limb, Are they not sign and symbol of thy division from Him? Dark is the world to thee; thyself art the reason why; For is He not all but thou, that hast power to feel 'I am I'? Glory about thee, without thee; and thou fulfillest thy doom, Making Him broken gleams, and a stifled splendour and gloom. Speak to Him thou, for He hears, and Spirit with Spirit can meet-Closer is He than breathing, and nearer than hands and feet. God is law, say the wise; O Soul, and let us rejoice, For if He thunder by law, the thunder is yet His voice. Law is God, say some; no God at all, says the fool; For all we have power to see is a straight staff bent in a pool; And the ear of man eannot hear, and the eye of man eannot see; But if we could see and hear, this Vision-were it not He?

'So Cowper:—

There lives and works a soul in all things, and that soul is God.

'So St. Paul :--

Know ye not that ye are the temple of God, and that the Spirit of God dwelleth in you? If any man defile the temple of God, him shall God destroy; for the temple of God is holy, which temple ye are.

'Can man, woman, or child have any more elevating and ennobling creed than that of being an actual

portion of such an Everlasting Omnipotent Omnipresent Beneficence "comprehended of all things"?

THE PILGRIMAGE WANING.

Monday, August 6.—The Mecca arrived to-day with what are practically the last pilgrims; for there is only the Zagazig to come now, with the remaining two or three hundred Egyptian 'haggis,' and my time at El Tor will probably be ended for this year. On board the Mecca was the same captain who was here some five weeks ago—Captain Crockhart. He came ashore and dined with us. The pilgrims were all of them North African Moslems, from Algeria, &c. They are noted for being dirtier than any other pilgrims, and without doubt there is truth in the statement. When we were proceeding to board the ship, and were still some hundred yards off her, we got a whiff of the peculiar and penetrating odour for which the Tangier pilgrims are famed.

Tuesday, August 7.—Now that we have definite indications as to when we are likely to go back to Suez, there is plenty to do in making various arrangements for storing here and for transport there. The Zagazig is expected to-morrow, and if she does not cause unexpected delays we shall go up in her on Saturday next.

We had quite an 'at home' this afternoon, for all the officers of the *Mecca*, along with her doctor, visited us. I had a grand donkey race with the latter, and just succeeded in beating him at the goal. It was great sport seeing these sailors on the donkeys. We were a party of eight, and, with the exception of the Greek doctor, Zachariadis, and myself, they all fell off or were thrown several times.

MEDINA WORK ENDS.

Wednesday, August 8.—The Zagazig arrived this morning with the news that there were no more pilgrims left at Yambo; so, when the 400 she has on board have purged their quarantine of three days, the Pilgrimage then, as far as we are concerned, will be ended for this year, and we shall be able to get back to comparative civilisation. The pilgrims which the Zagazig has brought are of the poorest class, and, with one or two exceptions, have to be fed at the expense of the Government.

Was able to commence to-day the packing for Suez of my own 'goods and chattels.' The state of one's clothes, &c., which have not been in use at Tor, and which have been carefully stowed away in a big box, is sad to contemplate. Everything is ingrained and smothered with impalpable powder—the result, apparently, of the numerous dust storms with which we have been visited.

This evening Zachariadis, the Bimbashee, and I dined with Captain Crockhart on board the *Mecca*. Mrs. Zachariadis was invited, but could not leave her children, one of whom is not very well.

Thursday, August 9.—The steamers Mecca and Houdedah are now leaving the roads for Suez. With the exception of a small extra 'section' which has been erected for the Zagazig pilgrims, the whole camp is struck, and all the tents, &c., are returned into the

'Store.' Where, a few days ago, there was a small town full of life, there is now nothing but desert, on which a large number of crows are searching for odd scraps of hard food—bits left by the pilgrims.

Tor, Adieu.

Friday, August 10.—The last day at Tor; for we are to sail to-morrow morning. My packing, fortunately commenced yesterday, is at an end. There have been a thousand and one odd things to do in a few hours. The whole morning I have been worried to give certificates and testimonials for the discharged officials to take away with them as aids to future employment.

- Collected some samples of the Tor water supply, and have carefully packed them ready for analysis and report to the authorities.

Now that the time to leave Tor has come, it is with distinct feelings of regret that I depart. The novelty of the life, the interesting sights seen, the historical interest of the district, the remarkable people with whom one has been associated, the beautiful scenery of land and sea, together with the charming freedom from all conventionalities in the life here, all combine to make one feel much of regret in leaving the scene of one's first labours at nineteenth-century sanitation in these most ancient of the lands and seaboards of history. Professionally also I have greatly profited. And I cannot but see that in some years this camp would afford experience that would be unique.

Housekeeping Experiences.

Personally, I have here had my first adult lessons not only in self-restraint but in self-assertion; in the art of dealing kindly, yet justly and firmly, with comparatively large bodies of men; in the value of allround knowledge as well as of a sound British general and medical education—in short, scarcely a day has passed that has not brought with it some valuable lesson, some interesting incident. Some of my housekeeping experiences would provoke my European lady friends' laughter, while certain of the methods of management forced on us would scarcely be commended at home, and could only be adopted by Amazonian housewives. However, 'nothing is so successful as success,' and even that rascal of a head cook of ours, whom I whipped for unruliness and for fighting with another man, now worships me—though not for my own sake, I fear, so much as for being his 'saviour from the other beast.' On the fighting incident hangs a small tale that perhaps deserves another paragraph.

FIGHTING WITH CHOPPERS.

A horror-stricken native rushed into my room a fortnight ago and, with much gesticulation and many ejaculations, of which I could only make out 'chopping heads off,' rushed me out with so much hurry that the only weapon that could be snatched up was my rhinoceros-hide whip or 'kourbash.' Outside, more

frightened fellows met me and implored my instant interference. Arrived on the scene, there burst on my eyes two infuriated men fighting to the death with big meat-choppers. Mercifully they were hugging each other too closely to do anything worse than hack and gore each other about, for actual blows from such heavy weapons would cleave even their thick skulls. Continuing my rush through the shouting and jumping crowd, I 'went' for those two men. One of them somehow ran against my clenched left fist, the other against my whip-handle clenched right. Perhaps it was the rebound that floored them, but the next instant they were on the ground yelling under showers of blows from the kourbash. Nothing but sheer force has any effect on these thick-headed, thick-skinned brutes. 'After a storm a calm.' The excitement subsided immediately, the onlookers slunk away, and I was soon finishing my cigarette amidst unusual quietude.

THAT COOK!

That cook was the man who got drunk and was imprisoned (see Friday, June 15); the man who fed his friends at our expense (see Friday, July 20). Oh! that cook. Trouble with servants is not confined to civilised communities. Those who serve and those who are served look at things from different standpoints, especially when the intelligence of the two classes is unequally developed and their consciences unequally sensitive. Are the faults always on one side and never on both sides?

I could tell many other odd tales of the hates, and

a few relating to the loves, of these people. Really, I am sorry, for some reasons, to be leaving them.

Tor, id est Mountain.

Tor, El Tor, or Gebel Tor. 'El' is merely the definite article 'the'; 'Tor' means 'mountain.' But so does 'Gebel' mean 'mountain.' Apparently, 'El Tor' was so named because this spot was the landing-place for 'el tor'—that is, 'the mountain' (Sinai)—or 'the mountain of mountains'—that is, 'gebel tor.' Thus the word 'Tor' focusses the history of the whole country. The group of Bedouins inhabiting the land acquire their name (p. 86) from 'the mountain.' This, its coasting, village is in English 'the mountain.' Indeed, the original colony of the little seaport was founded to serve 'the mountain,' for Sinai beckoned to Katharine and convent and colony arose. The whole peninsula is a tongue of Nature eloquent of the past. Odd that it should be eloquent of the present too. Curious that, of all places in the world, this spot should have been selected · for the application of the latest development of the laws of health to the physical salvation of sanitary sinners.

Saturday, August 11.—Our staff is disbanded, our belongings stored here or packed for transit, and our official quarters deserted to scorch and rot under the sun's fierce rays until the Koran-enjoined pilgrimage months of 1895. Whether I shall return here remains to be seen. For professional reasons I should like to, especially if cholera must come. Per contra, I can

see that such an additional source of illness of the pilgrims would involve greatly increased labours and responsibilities on our part. However, the more the work, the greater the number of helpers that would be sent down to us.

Old Hennen has given me a parting present of two bottles of real Tor mastic (liqueur) and several packets of that mixture of dates and almonds to which I have already alluded.

Embarkation commenced at daylight. By eleven all the *personnel* and baggage was aboard, and the 400 pilgrims safely stowed away forward. Soon after midday the anchors were weighed, and, amid the shouts of farewell from the natives who were sailing round the ship in their boats, we slowly steamed out of the roads *en route* for Suez.

RETURNING TO SUEZ.

The day was, as usual, brilliant; but a somewhat strong wind abeam caused a good deal of motion, that soon proved too much for those who were subject to mal de mer. We were a merry party, and beguiled the time with song, jest, music, and—not unimportant—feeding. The latter was very satisfactory, the steward being noted for his good purveying powers. On these Egyptian steamers one pays for one's passage only, the ticket not including food. While coming up the Gulf we saw many 'flocks' of flying fish. It was a charming trip. We were close to the Arabian coast for part of the time, and the African for the remainder. On both sides the mountains are most

beautiful, and in places run down straight into the sea. I began the voyage by sharing a cabin with Zachariadis and two other of our officials. But four people in a cabin ventilated by portholes that opened on to four hundred pilgrims was a bit too much, so I prevailed on the steward to make up for me a bed on deck. There slept peacefully until 5.30 a.m., when Suez was sighted.

SUEZ ENCORE.

Sunday, August 12.—Anchor was dropped soon after seven this morning in 'Suez Roads,' the scene of my future work. Dr. Ferrari, accompanied by the Governor of Suez, who is a dear and queer old Arab, as well as a whole collection of other officials, came on board and gave us free pratique to enter the docks, which we did towards nine o'clock. The disembarking then commenced, and having found all my baggage, was soon en route for Suez, as I have decided to live there and not at Terre-Plein, which is too close to the shallows.

My hotel is, so far, comfortable and clean. After lunch and a siesta, called on several people I knew, and by one of them was taken to the International Club recently started in Suez. All the English community was in mourning, as Captain Case, of the 'Ports and Lights,' was buried this afternoon. Down at Terre-Plein found Blatteis on duty at the Santé. He seemed as unhappy as ever and told me long yarns as to his grievances. What an unfortunate state of mind is that in which one can see nothing

but evil in everything, even though it be the result less of fault than of misfortune.

Monday, August 13.—This morning some newspapers and a letter from my sister May arrived. The people at home and all my friends are most kind and thoughtful in sending me weekly journals.

In the early morning went round the native hospital with Creswell, the doctor in charge. He is a clubbable fellow and seems to be glad of the chance of getting another Englishman to work with. We think of attempting two researches together. The hospital is small but well appointed, with beds for some thirty patients. At 11 went down to the docks to meet a Mr. Scott, agent for Wills & Co., who took me off on his launch to the Gannet, a British gunboat stationed here. We first called on the cartain, by name Fegen, and afterwards on the wardroom officers. They all made us welcome and gave me lunch. It was a novel change after two months at Tor to be in the society of English gentlemen again. They are a particularly nice lot of men.

In the evening saw and arranged with Ferrari to go on duty to-morrow at 6 a.m. and to do twenty-four hours straight on end every third day—which is, I find, the usual division of work for the three of us.

I called on Baglehole, the P. & O. agent here, and he was kind enough to say he would send some articles to England for me, including the slab of granite from Mount Sinai, by the ss. Coromandel due here to-morrow.

I have arranged for advanced work at French and Arabic. I speak nothing but German with Blatteis.

SUEZ WORK.

Tuesday, August 14.—This has been my first day (neither eight hours, nor twelve, but twenty-four hours) of duty here. Called at half-past five, and, having had a light breakfast in my room, caught the train at 6.30 for the 'dock' station, which is between two and three miles from Suez and is within a few hundred vards of the Quarantine Office. The latter is a large building at the very end of Terre-Plein and may be said to be built in the sea, for it has the open sea or docks all round it. The Admiralty Chart of the Bay of Suez, of which the folks at home and I have copies, is a little incorrect and out of date, for since it was engraved there have been various changes and some reclaiming of land; it shows, however, the position of the 'Santé' (close to the map-word 'Jetty') on the south-east wall of the south basin. Dr. Ferrari, his son, and their housekeeper occupy one wing, and De Laugier, who is the chef de commis, and his family the other; while below are offices and the rooms given to the medical officer and guards on duty. We have a very good launch at our service in which to visit the ships by day, but at night the agent's launch calls for us, as we have not a night shift of engineers, firemen, &c. The ships coming in to Europe (we have nothing to do with the out-going vessels) anchor in the roads about a mile and a half from the Santé in order to receive our 'Visite Médicale,' before which no one is allowed to board or leave the vessel in question.

On arrival at the Santé, just before seven, I relieved Dr. Marcopoulos, who is doing temporary duty in place of the Frenchman Delarue, of whom we have heard nothing and who will not, we suppose, come at all now. Marcopoulos seems a nice old man-I brought my type machine with me to-day, but have had very little chance of using it through having almost constant calls to ships. The first arrived at 8 a.m., and until 8 p.m. a fresh one came up nearly every hour. Among them was the P. & O. ss. Coromandel, on board of which I conveyed for transit home a box and a 28-lb. granite chip of that old, old block, Mount Sinai. During the twenty-four hours I visited eleven ships, which, with one exception, an Austrian Lloyd, were British. At 11.45 lunch arrived from my hotel, and I was quite ready for it, for from 5.30 a.m. this morning I had had nothing except a bunch of grapes, bought from one of the bum-boats which flock around every ship immediately she drops anchor.

QUARANTINING.

The routine method of the 'Visite Médicale' is as follows. On a ship being sighted in the Gulf, the medical officer on duty is informed, and he goes on board his launch and steams out to meet the incoming vessel. When the latter has dropped her anchor, the launch goes alongside and one's Garde Sanitaire asks for the official log and the bills of health; these are brought to the medical officer; if they are satisfactory, he gives the order for the crew to be mustered and he then goes on board to inspect

them. All being en règle, he now gives the permission to haul down the quarantine flag, a plain yellow one, at which signal the guards, who act as the medical officer's clerks, the port officer, and the ship's agent, who by this time will have come alongside with the electric-light launch, and any other persons who may be interested in the ship, are at liberty to go on board. The medical officer and his two clerks, or assistants, next go below and make out the 'Interrogatoire' (appended) and the 'Visa' or certificate for the bill of health, or 'Patente' as it is called here. The ship's doctor, or, if there is no doctor on board, the captain, then certifies in writing that there is no case of infectious disease in the vessel. With that the affair is ended and free 'pratique' given.

The following is a copy of the printed form for the 'Interrogatory':—

CONSEIL SANITAIRE, MARITIME ET QUARANTENAIRE.

No. d'arrivée.....

No. du départ.....

INTERROGATOIRE POUR LA RECONNAISSANCE SANITAIRE.

This day hath appeared at this Office Captain reply under oath to the following interrogatories;

Swear that you will speak the truth.

A.

1° Q. State your Christian and surname, nationality and rank.

A.

2° Q. Where do you come from?

A.

3° Q. To what port are you bound?

A.

4° Q. Did you obtain at your port of departure, or at any intermediate ports, a Bill of Health or other documents?

A.

to

- 5° Q. State your flag; also name and tonnage of your vessel.
- 6° Q. State nature of your cargo.

A.

A.

A.

- 7° Q. Did you load at more than one port?
- 8° Q. State date of departure.
- 9° Q. Was the public health good in the port or ports where you loaded or have been stationed?
- 10° Q. Have you communicated while at sea with any other vessel?

 State bearings, nationality of vessel, and whence she hailed.
- 11° Q. Give number of crew and passengers as stated on your Bill of Health and in your Articles of Agreement.

 A.
- 12° Q. Have you the same number as you had when you left and are they the same men, or have any been changed. If so, state reasons.
- A.
 13° Q. Have you had any invalids on board, or have you any now on board?
- A.

 14° Q. Have any of your passengers or crew died during the voyage or in port, on board or on shore?
 - A. Done at the 189 .

A large budget of letters and papers arrived to-day, among them letters from home of July 30 and August 6, and Barnfield August 6. Thanks, many.

SUEZ PLAY.

Wednesday, August 15.—Came off duty this morning at 6.30 and caught the 7 train back to Suez. The night work was fairly easy; for I was called once only, at 2.30.

Arrived at the hotel, a bath was much enjoyed after twenty-four hours in the same clothes. Met Zachariadis and had a walk around the town with him. De Wilton, to whom I had a letter of introduction from Miéville, asked me to lunch. At his house met the captain of one of the Eastern Telegraph Company's cable ships, a pleasant fellow, and with him, after lunch, leaving De Wilton to his siesta, went down to the docks to see a cricket match between the E.T.C. and the Gannet. The cricket 'field' is a bit of the desert, so rolled and watered that it is hard and flat, the pitch itself being covered with a long strip of cocoanut matting. The play started at 3.30, and the stumps were drawn at 6.30. The E.T.C. had the best of the game, which is to be continued to-morrow, for they were able to put a very strong eleven in the field, as, besides their permanent staff here, they had the two cable ships, the Amber and the Chiltern, from which to make up a team.

Thursday, August 16.—Went to lunch with the doctor of the Amber, a nice little Johnny, by name John Littlejohn. After lunch we went to see the finish of the cricket match. It ended disastrously for the Gannet, whose men were beaten by an innings and twenty runs. Had dinner on board the Gannet, being invited by the doctor, a humorous chap, by name 'Jock' Penn. It was rather a pretty sight to look down on the well-lighted and 'spick and span' deck of the gunboat from the poop where we were dining. At 11 the guests were rowed back to the dock station.

Friday, August 17.—Called at 5.30, and having

eaten the provisional light breakfast caught the train at 6.30 for the docks. There was met by our launch, for which I had telephoned, and within a few minutes was at the Santé. Throughout the whole day and night not a single ship arrived in the roads from the south.

About ten o'clock two officers from the Gannet came round, bringing with them their revolvers to shoot off a match with me that we had arranged on the ship last night. We each fired thirty rounds, eighteen at bottles at a distance of thirty yards and twelve at bottles floating away from us in the sea. My prized 'Navy Colt' revolver succeeded in holding its own against the 'Webly Naval Service' revolvers used by Ayscough, who is the second lieutenant, and Peacock, the chief engineer.

With letter-writing, reading, a siesta during the heat of the afternoon, and a long uninterrupted night's sleep, my twenty-four hours of duty was accomplished uneventfully but not unpleasantly.

'Boys.'

Saturday, August 18.—Arrived in Suez from Terre-Plein soon after 7 a.m., and after a bath and breakfast went with Creswell to give chloroform for an operation on a private patient. Afterwards to the hospital, where there are some very interesting cases, and then back to lunch with him. He has a nice house at the north end of Suez. It seems so odd, here as elsewhere, never to see any female domestics. Male natives—'boys' they are called, though they be fifty years old—do everything about the house. Mrs.

Creswell tells me they are good servants if you are very strict with them, but that strictness is absolutely necessary.

A Donkey Picnic.

After dinner to-night came a moonlight donkey picnic, to which I had been invited by Mrs. Baglehole, the wife of the Peninsular and Oriental Steamship Company's agent here. At nine o'clock, under a glorious moon, about five-and-twenty of us—ladies and gentlemen-met at the French hospital, and at the word of command scurried off en reute for the Pontoon Bridge, some five or six miles from Suez up the Canal. I had my old Tor donkey, and on him was easily able to outdistance all but the two finest animals. We then had some hilarious races in the moonlight across the desert; also along a creek up to the great canal. Here a general halt was called for refreshments, previously sent from Suez, and the various incidents of the ride were discussed. After a cigar and a song or two the remount was called, and we started off again for Suez. Arrived there, all went to the Bagleholes' house and partook of a most excellent supper. Lastly came a musical evening—or perhaps one ought to say morning, as it was past three before dispersion.

Life at Suez contrasts strongly with life at Tor; each, however, has its charms.

GOOD FELLOWSHIP.

Sunday, August 19.—'It goes without saying' that one did not get up very early this morning.

After lunch Hammond, the Acting Chief of the Eastern Telegraph Company, sat and smoked in my balcony and gave me much interesting and useful gossip concerning Suez and its inhabitants.

A letter arrived this morning inviting me to become an honorary member of the Ward Room Mess of the Gannet, an invitation most gladly accepted. These thoughtful and kind-hearted sailors have thus made things very convenient and pleasant, enabling me on duty days to take the launch round to the Gannet for lunch and dinner instead of having food, necessarily half cold, sent down from the hotel.

Monday, August 20.— On duty to-day. Few ships have arrived in the course of the twenty-four hours' spell of service. I availed myself of my new privilege as honorary member of the Ward Room Mess to lunch on board the Gannet. She is an old-fashioned gunboat, carrying about 150 men. Her officers are all very nice fellows. In the afternoon they gave a regatta, at which, being on duty, I was unable to attend, much to my regret, for I wanted to sail our sanitary gig. Had to be content with watching the race from the top of the Santé, but my new field-glass gave me a clear view of the whole course.

While having dinner this evening on our jetty my invaluable, if complicated, pocket-knife fell into water fifteen or twenty feet deep. One of our natives offers to dive for it.

During the night had only one boat to visit, so was able to get abundance of sleep.

Tuesday, August 21.—On getting back to Suez found letters waiting for me from my father, dated

August 12, accompanied by some most admirable Government maps and photographs of Sinai and the Sinaitic district. I am particularly glad to have these. They recall most vividly one of the most delightful weeks I have ever spent. My sister May's reproduction of my sketch map of the Quarantine Camp, and her coloured manuscript map showing the Hedjaz, and indeed the whole sanitary area from the Mediterranean to the Indian Ocean, will be extremely valuable to me. [For the latter map see opposite page x. J. A. and M. A.]

To-day took my first Arabic lessons and some advanced French studies. The preceptor is a Syrian named Michel, a master at the Oriental schools here, and apparently a pleasant and capable teacher. In the late afternoon had some very good tennis at the Eastern Telegraph courts. In the forenoon spent an hour or two at the hospital with Creswell. It is quite refreshing to get some clinical work again after doing almost none for several months.

ONE MISSED. ONE HIT. KILLED NONE.

Wednesday, August 22.—Narrowly missed a nasty accident this morning. After going round the hospital with Creswell, we started to see a man at 'the Camp,' about two miles from Suez. Creswell was riding his horse and I a donkey. Suddenly the horse lashed out and touched me on the knee-cap. But the hoof only just reached me; in fact it simply cut my trousers, and shaved my knee. In the afternoon more Arabic, and, later, tennis at the Club.

Thursday, August 23.—On duty. Again very little to do, only three ships arriving during the four-and-twenty hours. On reaching here heard that my Austrian colleague, Blatteis, had met with an accident in opening a bottle of soda-water, resulting in such severe hæmorrhage that he had to be taken to the French hospital. A hard hit for the poor fellow.

This morning a native diver succeeded in finding my treasured knife. It is slightly rusty from its three days' immersion, but otherwise none the worse.

Friday, August 24.—On coming off duty this morning, De Laugier and I went on board the Gannet, and, picking up Ayscough, Nelson, and Peacock, steamed down to Moses' Wells in a launch that one of the agents had lent me. Our object was sport, for we had been assured that the well-known Egyptian quail had arrived. We walked through some three or four miles of desert and scrub, but alas! killed none; found absolutely nothing; in fact, not a cartridge was fired.

On visiting Blatteis at the hospital, found him in a very weak state, but apparently in no immediate danger. He has had more than ordinarily severe hæmorrhage, having wounded a large artery.

Saturday, August 25.—My 'boy' woke me this morning with the alarming statement that 'the Austrian doctor' (Blatteis) was dead. Hurrying round to the hospital, found this, like most of the 'boys' news one hears in Suez, to be scarcely 'founded on fact.' He was getting on well and had had a good night. It subsequently appeared that an Austrian lady had died in the early morning, and

some busybody, seeing the flag half-mast high at the Austrian Consulate, jumped to the conclusion that Blatteis had departed.

Assisted Creswell at a major operation at the hospital this morning. In the late afternoon, after the Arabic and French lessons, played tennis at the club. In the evening dined with the Eastern Telegraph Mess. Their mess-room is a fine dining-hall, and is kept cool by enormous punkahs or rectangular fans suspended just above the tables and reaching from one end of the room to the other. These are actuated by a native, who simply pulls a string and 'the figure works.'

BURNS AND PALM OIL.

Sunday, August 26.—On duty. In the evening one of the agents came round and asked me to go aboard one of the ships that was coming southwards through the Canal, and which had telegraphed for a doctor, there having been an accident on board. On arriving found that the second engineer had been very badly scalded by the breaking of a steam pipe. He had been got on deck, and was in a bad way. Having covered him up in much wool and soft paraffin, I had a sling made and hoisted him on his bed over the side into the launch, and sent him up to the French hospital.

Occasionally fairly good fees drop into my palm as a medical or surgical or sanitary consultant. Recently I was thus called to a case in which an accident had occurred to the agent on one of the ships I was boarding; a ladder had given way and he fell, hurting his leg a bit.

Monday, August 27.—On coming off duty, went on board the Gannet for breakfast and to say good-bye, as they are off for a ten days' cruise down the Red Sea. I had taken my camera with me, and after breakfast, when the vessel went out under full sail, got some snap-shots at her. It was a sight one seldom has a chance of seeing nowadays, a man-of-war under full spread of canvas.

Tuesday, August 28.—Writing. Arabic. French. Tennis. Blatteis is getting on slowly. The engineer is doing as well as a man with a large portion of his epidermis destroyed can expect, for recovery in these cases is always tedious.

Wednesday, August 29.—Duty day. Nothing of note outside regular routine.

LEAPING FISH.

I have been struck by the large numbers of small fry always swimming about in these waters. At times a big fish will go in chase, and then occurs a very pretty sight. In order to avoid their enemy, the little fellows make jumps into the air, and when they do this in shoals at a time, and keep up the dance, they afford a really lovely sight; one that might be compared to showers of quicksilver, covering many square yards. Talking of fish, one has very good dinner-fish here of various sorts. Particularly abundant, too, are prawns of a most superior nature, and to be had almost for the asking.

Thursday, August 30.—Mail day. There were welcome letters from May and Mother and various friends, all dated August 21. Thanks, many. The postal service seems to me most erratic. Letters arrive in Suez at varying instead of regular times, and one has to go or send to the post office for them.

Had some capital tennis at the E.T.C. courts. The tennis grounds here are made of sand with a little clay, rolled down and often watered; they make only a fairly efficient substitute for turf.

TERRE-PLEIN. A SÉANCE.

Friday, August 31.—Little to note to-day. Usual lessons and hospital work. In the late afternoon went to Terre-Plein to play golf with Scott, whom I mentioned on August 13, and Mrs. Creswell and her sister. Terre-Plein, as shortly stated on June 2, is a waterside hamlet of Suez. It includes the Canal Company's premises, the docks, and the offices and dwellings of the agents of various shipping companies. Its whole plain (plein) is largely land (terre) reclaimed from the sea, and the unoccupied portion serves as the golf ground. The appropriateness of its name will be obvious.

Saturday, September 1.—Duty day. Only one ship all day. Shipping is very slack just now, when as a rule it is so busy. In the afternoon took out our gig with young Ferrari and three sailors. One has to be very careful sailing here, as squalls come down off the mountains very suddenly, just as they do on our own mountain lakes in Great Britain.

Mavros, a shipping company's agent, has been making cartridges with me. He is a Greek, a great friend of Zachariadis, and just such a good fellow. Trustworthy cartridges are expensive and difficult to get in Egypt, so nearly everybody makes their own. It is not unpleasant work for two; tedious for one.

Sunday, September 2.—At the hospital. Spent some time with Blatteis, who is slowly recovering.

Monday, September 3.—My laboratory at the hospital is getting into order, and Creswell and I hope soon to be able to do a little at research. Blatteis is going on slowly and as well as a man of his temperament and physique can expect. I am fortunate in my temporary colleagues in place of Blatteis and Delarue. I have arranged with Mr. Hammond to share the upper portion of his house with friend Scott. Though not quite so conveniently situated for the hospital and station, I shall be much better off for fresh air and shall have more pleasant surroundings. It is odd to reside almost on the edge of the desert again, as at El Tor.

Tuesday, September 4.—On duty. Several vessels arrived during the day. One brought the report that the ship Rheinfels, which is three days overdue, was ashore near Ras Garib lighthouse. As that is nearly opposite Tor, no doubt some of my long-fingered Arabian friends there are hoping to net some unusual and valuable fish. The captain who brought the news said that in his opinion the Rheinfels would soon be able to get off. The intervals of afternoon duty were spent in loading cartridges.

A welcome letter arrived from Auntie Nell, dated

August 26, giving good news of all maternal friends.

At night, at De Laugier's, there was a so-called spiritualistic séance. I was invited to attend as a medical and physical expert, and was asked to thoroughly investigate the doings of the medium, who was the sister of one of our guards. Nothing more marvellous occurred than the pushing on one side of a table by a highly hysterical girl.

THE GOLDEN ORIOLE.

Wednesday, September 5.—On coming off duty this morning, I accompanied De Laugier, Mavros, and another Greek on a shooting excursion to 'the gardens,' about two miles out of Suez. We had little luck, as there were few birds, and they were extremely wild. Our bag consisted of several doves, three oriole (Oriolus galbula), and one quail. Egypt supplies London with quail in the season.

The golden oriole is shy but not uncommon; has a yellow body, black wings, and a yellow-tipped black tail. It is a rare visitor to England, and then only in summer. It is good eating, resembling pigeon in flavour and texture. A glance at the coloured frontispiece of the fourth volume of Morris's well-known book will show that it is a bird of some beauty. Its generic name oriole, as pronounced by human lips, is more or less an imitation of the bird's rather loud note, and the specific name galbula is merely the diminutive of galbus, yellow. It is about nine inches long. They say that in captivity it may, if it lives,

be taught to whistle a few bars of a tune. It has a pretty and well-set reddish eye. The male's plumage is bright, and at its best when the bird is three years old.

As we were riding back, had a rather nasty fall from my donkey which, once again, put his foot in a hole in the sand and threw me over his head. At the expense of a pair of trousers and several square inches of epidermis I managed to save my gun from serious damage.

At my quarters found letters from the father and from cousin Rosa, both dated August 29. Thanks, many.

Thursday, September 6.—On visiting the hospital this morning, came across a sad but interesting case of 'cancrum oris,' which Creswell tells me is rare.

In the afternoon there was a good cricket match between the *Gannet* and the Eastern Telegraph Company. I was playing for the former. We started at 3.30 and drew stumps at 6. The match will be continued to-morrow. On to-day's play the *Gannet* has a slight advantage. I may at once add that eventually we won the match.

Friday, September 7.—On duty.

QUAIL AND HEGEENS.

Saturday, September 8.—A sporting day. On coming off duty at 6 a.m., Mavros came round with his launch and took me to the Gannet to pick up Ayscough, the second lieutenant. From there steamed to 'the station,' where we found two men of the

E.T.C., Robson and Stacy, waiting for us. Thence we sailed to the pier at Moses' Wells and walked across to the oasis. From there we trudged on about two miles across the desert to a long patch of scrub, where we soon put up some quail. Our bag, however, was rather small, for we only saw eight, of which three were shot, as well as a few doves and golden oriole, 'yellow birds' as they are here called. The sun was now getting too hot for sport, so we walked back to the wells, and finding there some camels, rode to the pier and the launch, and so on board to breakfast. After three or four hours of tramping the desert, one begins to long for refreshment. On the way to the pier Ayscough and I had a most exciting and for me quite novel race. We were riding on good 'hegeens' as they call them here, or trotting dromedaries, which can go quite as fast as a horse, and a race on them was most interesting. My friend lost by a short head.

At night there was a theatrical performance at Suez, in Italian. Was not able to make much out of it.

For the last few days the climate has been very hot and damp, a combination most undesirable.

Sunday, September 9.—A most delightful day of absolute rest. In the afternoon went to see Blatteis, who is progressing but slowly. Have been elected a member of the General Club here and also of the Tennis Club.

Monday, September 10.—Duty day. Very little work to do. The agents of the various shipping companies explain that the plague in the East and the war between the Japanese and Chinese have

much to do with the small number of ships that have been arriving lately. As a rule at this time of year a large number of vessels carrying rice pass to Europe through the canal, and the war has temporarily curtailed this trade.

ANOTHER PICNIC.

An invitation arrived to-day from Mrs. Creswell for a donkey picnic on Wednesday next. We are to meet at 9.15 p.m. and ride to a place called Little Shalloof, where an Arab boat is to meet us on the sweetwater canal. Thence we sail down to a large garden for supper and then ride three miles back to Suez—a most fascinating programme.

Letters from mother and Gertrude and a card from the father. A thousand thanks.

Tuesday, September 11.—Did not get off duty till nearly eight o'clock this morning, for a run of ships started about 5 a.m. and kept me busy till 7.45.

A Moslem Festival.

For the last few days there has been a great Moslem festival in Suez, and to-night has been the crowning event of the affair. Here as elsewhere the prophet's birthday is observed as a great holiday, and its anniversary was celebrated to-day. In the central square of Suez a number of big tents or booths had been erected, and in each the different varieties of followers held their religious dances and other exercises. In the afternoon there was a grand procession of all the different sects with flags flying and

numerous tom-toms playing, or, to be accurate, tomtoming. At night all the booths were brilliantly illuminated with coloured lanterns, and a vast concourse of people filled both them and the space left in the middle of the square. Here was set up a pole with some flags and lanterns on it, which represented by agreement, they said, the birthplace of the prophet. The order of the evening was as follows:—The heads of each sect, accompanied by a number of their followers, carrying tom-toms and cymbals and variegated lamps, promenaded the streets, all the while making great demands on their instruments in order to collect the straying or distant members of their following. Having accomplished this object, they wended their way towards their booths. One special booth, most gorgeously illuminated and decorated, had been set apart for the Grand Sheik, or Moslem High Priest. To him all Moslems paid their respects and in his presence chanted a prayer, and then went to the central 'shrine' already mentioned. Round this pole they went through more of the chanting and praying, and then adjourned to their respective booths. There they performed the same kind of contortionary dances that I witnessed two months ago at Tor. [See pages 90 and 91.]

The Governor of Suez was holding a reception in a booth specially set apart for him, and all persons in the Government service had to go and make their obeisance. It was an odd and amusing affair. He was sitting at the end of his tent arrangement in the centre of a semicircle of attendants, and of people who were paying their respects to him. I could not find anybody to come with me or tell me what to do, so faced the ordeal alone, trusting to inspiration. I walked straight up to him, deliberately, and, touching my tarboosh (which one takes off to no one), ran off a number of what I fear were somewhat unblushing flatteries in the form of a little speech to him in English, which was duly translated with Oriental embellishments. Thereupon I was graciously requested to take a place near him, and cinnamon, coffee, and cigarettes were handed to me. After a few minutes I gravely bowed to his Excellency, and took my departure.

From the Governor's tent I found my way to a sect who are adherents of a species of fire-worship; at least apparently, for at present I can get no reliable information on such points. Anyhow, when everybody was assembled round their headquarters, then, amid much tom-toming, two or three of the chiefs commenced serious business by playing with lighted torches, and holding glowing charcoal in their white robes, seemingly applying the flames of the torches to their naked skin. After this, one of them executed a wild dance with a torch in each hand. The chief priest then stripped himself to a pair of short cotton trousers, and, a big heap of straw having been set on fire, he danced his dance amid the flames, and at times would roll in the midst of the blazing straw, evidently with no injury to himself. Another chief, in a wild state of frenzy, was given a glass tumbler, which he immediately commenced to break up in his teeth. These feats made a wonderful impression on the assembled crowd. But, alas for their references

to special providence! I am bound to testify that I have seen jugglers at an English village fair do the same tricks; and many of our tricky 'fire-eaters' at home could have shown these fanatics far more astonishing performances with fires and flames.

It was now past twelve o'clock, and, having been up since 5 a.m., I strolled home to bed. The last thing heard before dropping off to peaceful sleep was the monotonous beating of the tom-toms, which, it appears, went on till three or four o'clock in the morning.

Wednesday, September 12.—Did not rise very early after the affair of last night. In the afternoon tennis at the E.T.C. courts.

NIGHT INTO DAY.

After dinner, about nine o'clock, a party of some twenty-five of us, including seven or eight ladies, assembled outside the French hospital, and, at the word 'go,' went off helter-skelter across the desert towards Little Shalloof, a most delightful ride of five miles or so in the light of a glorious moon, and in the refreshing temperatures of our early night (say 60° F.) as compared with that of our days (say 80° F.). There were the usual slight casualties in the way of falls, but no one was being really hurt until, on a rough bit of road, Mrs. Creswell's donkey tripped and threw her rather badly, for her face was a little cut, and she was a good deal shaken; but she bravely remounted her animal and galloped on. Little Shalloof was reached at ten, and here we found

a large 'dhow' in readiness on the sweetwater canal to take us down to a certain garden, where was to be a halt for refreshments. Several of the party being musicians, their instruments had been sent up here, and we had some lively music while being towed down the waterway. Our donkeys were sent round to meet us at the garden. On arriving there, we found that our kind hosts, the Creswells, had provided a most sumptuous supper. This being disposed of, we had more music, and at about half-past one o'clock remounted our donkeys, and reached Suez soon after two o'clock in the morning. These excursions are altogether delightful, especially to a Londoner.

DAY INTO NIGHT.

Thursday, September 13.—Up at five o'clock for duty. By good luck had no ships to overhaul until the afternoon, so made up for last night's loss of rest by sweet sleep in an easy chair.

At noon went aboard the Gannet for lunch. Found that the officers who had been with us at the picnic were not much more lively than myself. All agreed that the excessive damp of last night had at least 'something' to do with the great lassitude of to-day. It is always the dampness, or something else; never the—well—say the excitement and loss of sleep. Oh, dear no!

Friday, September 14.—There were only two ships up during the night, and, pace Hibernia, even they did not arrive until five o'clock this morning, so again had a good sleep. My friends on the Gannet, after

another night's rest, agree that the 'dampness in the air' has gone altogether.

In the afternoon there was a cricket match down at the docks: Town and the Eastern Telegraph Company versus the Gannet. Scoring to-day pretty equal. At the hotel found a long letter from the father, dated September 5; many thanks.

Saturday, September 15.—Most of the morning spent at the Arab hospital, helping Creswell with an important major operation. In the afternoon continued the cricket match, with the result that the Town and Telegraph got beaten by the Gannet by some twenty runs.

DIVISION OF LABOUR.

Sunday, September 16.—Duty day. Exactly half-way through a capital lunch with a man called De Lacroix, my launch came for me to go to a steamer in the roads. Also exactly halfway through a nice little dinner on board the Gannet that launch again claimed me. 'We can't have everything to please us; even duties sometimes teaze us.' Each time had to rush off at once, for the ships' agents make themselves unpleasant at night, when one depends on their launches and their politeness, if one is not ready when they come for one in the daytime.

This allusion to the quarantine steam launch and one's every-third-day duty reminds me that some of my English correspondents seem to think that twenty-four consecutive hours—in fact, all day and all night—on duty, and forty-eight consecutive hours off duty, is an odd division of work and rest. I can only say

that I found that to be the division, and followed it without a thought. But even on reflection I cannot see that it is unsatisfactory. As to the number of consecutive hours of duty (twenty-four), they are never all occupied in one continuous stream, by shipvisiting; hence, there is ample opportunity for odd hours of rest and sleep if needed. And the division has at least the merit of simplicity; one full day of work for each of the three medical officers, who only once go to their work, and only once return from their work, in each period of three days. And it gives each of us two clear days and nights off duty. These two-day periods are invaluable to me: firstly, for maintaining my medical and surgical knowledge by practice at the local hospital, a privilege accorded to me by the kindness of those in authority; secondly, for work at original research; thirdly, for improving my knowledge of French, and for learning Arabic by the help of good Michel and by home study; and, fourthly, for health and recreation in the forms of shooting, fishing, hunting (I have yet to describe an hyæna hunt), riding, tennis, and various social gatherings.

LIFE AT SUEZ.

My friends will now possess, I think, an outline picture of my life at Suez. The charm of El Tor was novel experience; daily was there something to interest me, and through me, perhaps, to interest the readers of this Journal. The characteristic of Suez will be quiet daily duty as well as that preparatory work for my future life which my friends must take

for granted, and in faith and hope in the writer rather than by way of his slow description. They will, therefore, not be surprised if in my Journal they should henceforth sometimes find two or three days' doings rolled up into one short paragraph. In some such way I shall endeavour to keep in touch with old friends without being tedious or dull.

I am happy to say that so far I have maintained perfect health; neither the warmth nor the dampness, nor even their conjoint influence, often troublesome to Europeans, having the smallest ill effect on my physical system or my spirits. This is satisfactory for many reasons. 'A merry heart gaes a' the day, a sad tires in a mile o.' But none are invulnerable, least of all those who have to confront disease at all hours and in all places.

Monday, September 17.—Had a continual succession of ships from midnight on, but got quite two hours of sleep altogether during the twenty-four hours of duty.

This afternoon there was a good regatta, with headquarters on board the Gannet. The élite and beauty of Suez assembled. In the evening went to the Bagleholes' to a particularly nice little dinner. On leaving there at eleven went back to my rooms, and, having changed clothes, rode down to the docks with my gun in order to start at 4 a.m. up the canal with friends on a shooting excursion.

A DAY'S SHOOTING.

Tuesday, September 18.—Up at 3.30 a.m. After a light breakfast embarked on one of the Canal Com-

pany's launches, and by four we were steaming up the canal en route for Kabret, a mooring-place in the Bitter Lakes. I was so drowsy that on boarding the launch I at once went below and slept soundly for two hours, so am unable to give any account of the south end of the canal. At about seven we arrived, and having had some more breakfast started to shoot quail. Our party consisted of Mavros, a Frenchman and myself, with an Arab to carry our provisions and spare cartridges. We soon put up some birds and bagged one each. Then three quail got up on the extreme right and flew across our line, and the Frenchman, losing his head, shot at Mavros' bird. Worse still, waltzing round, he perfectly covered me with his gun on full cock, but mercifully fired about a yard behind me. After that we placed Monsieur on the very far left, and kept at a very respectable distance from him for the rest of the day. Please understand that I do not generalise; even Englishmen are not always as careful with firearms as they might be. Some three or four hours of indifferent sport brought us to a place called Genefve on the sweetwater canal, where there is also a railway station on the Cairo line. But, alas! the village and station were on the opposite bank; how were we to get across. A native on that bank came to the rescue. He got a large bunch of rushes, and, placing on them a piece of board, swam across, pushing this improvised raft in front of him. We embarked on the frail craft one at a time, and so were ferried over. We now attacked our lunch in the garden of one of the villagers; after a siesta went out shooting again;

finally left for Suez at 5.30 by train. Our bag for the day was not good, but this year the birds are scarce. We had eight quail, ten dove, some 'yellow birds,' and a hawk. I had a long shot at a magnificent eagle, but only having quail cartridges (No. 8) in my gun, the shot had little effect beyond slightly stimulating his flight.

At the hotel at dinner found letters from Cousin Lewis and from Dr. Mackie, dated the 7th and 9th respectively.

RETIRING TO BED.

Wednesday, September 19.—Duty day. Very busy. Twelve ships up in the twenty-four hours. Nothing of particular interest occurred beyond a collision between one of the vessels and a stone-lighter. The latter, getting the worse of the encounter, retired to the gulf's bed. Sharks abound at the spot, but the seven natives in charge of the lighter were all rescued from drowning without the more additional and more horrible death-risk. Besides, some conceited white people say that sharks have to be very hungry indeed before they will tackle a black man.

Thursday, September 20.—Did not get off duty until the nine o'clock train this morning.

In the afternoon we had a cricket match in which the Town and Telegraph played the *Gannet* and were beaten by ten runs, the sailors playing an admirable game on our curious 'field' [see pages 133 and 156].

In the evening came a rich and welcome mail for me, including letters from the father, May, mother, and one from grandma; dates from the 11th to the 13th. They were particularly acceptable, and I send thanks, many, to all for them.

ADIEU, ZACHARIADIS.

Friday, September 21.—This morning Zachariadis left for Alexandria. To give an idea of how he was liked by all classes, I may say that the station was actually crowded with people anxious to get a hand-shake and say a kind word of God speed. I am sorry he is leaving Suez. Few here excel him in goodness, and he and I were such close friends at El Tor.

In the afternoon had a good game of cricket; but,

Oh! for the Watford ground,
And its turf so green and grand;
I'm not yet accustomed to batting on matting,
And fielding on desert sand.

Saturday, September 22.—Duty day. Until 10 p.m. no ships; after that hour a fleet.

HUNTING HYÆNA.

Sunday, September 23.—Marcopoulos, my colleague, was good enough to relieve me from duty at 5 a.m. on Mavros arriving with his launch to take De Laugier and me for a two-day hunt. Steamed alongside the Gannet to pick up Ayscough, who had been invited to join the party. He was unable, however, to get leave, apparently because of an impression that the portion of the Arabian desert to which we were going was unsafe on account of marauding Bedouins. We were

assured that there was no danger on this account nowadays, though it was there that some years ago Captain Palmer and two other Englishmen were murdered. At six arrived at the Lazaret landingstage, Moses' Wells, where there were camels in waiting to convey our tent, water, food and selves to the place where we had decided to camp. This was on a small elevation above the Wells, as it is not considered advisable to sleep on the level near to the water on account of damp and fever. Having left our servant and baggage here, we had an eight-mile morning ride across the desert to the mountains in search of game. Only three quail found their way into the bag. Went a little further to a gully in which the guides assured us there were hares. Found plenty of traces, but, alas! no hares. It was now getting too hot for sport, so, remounting the camels, we returned to our camp. En route we saw a Bedouin riding rapidly towards us from the Suez direction and making signals for us to stop. It turned out that he had been sent to find Mayros and to tell him to return to Suez at once, as one of our big cruisers had telegraphed from Port Said that she wanted 1,000 tons of coal, and Mavros, being the agent, had to superintend the operation of coaling. we were much annoyed, but we had to part.

After lunch enjoyed a good sleep for two hours and then took a stroll with De Laugier through the environs of the well.

The keen hyæna, fellest of the fell.—Thomson.

I do hope we shall find an hyæna at home in a certain lonely cavern of the lonely mountains to-

morrow, and be able to secure at least one skin, especially after such careful and prolonged hunting as these everywhere hated brutes need hereabouts. For in this case the incentive of hatred is united to that of sport. Except when at bay, or when ravenously hungry, they will not attack a grown man, but, alas! not infrequently carry off children four to eight years old. Not only do hyenas drag away man's pets, even his donkeys—for, though not bigger than some sheep, they are strong as young lions, and far more aggressive—but they will dig out and empty a human grave, new or old. Putridity? They love it. They will crack up, like nuts, every big leg-bone of a longdead camel, horse, or ox that has marrow in it. They are feared by other animals; they are detested by man—and especially by mothers. Ah! never is hunting so hearty as when the hunter hunts for hate. as well as for health, skill, and sport. My comrade has a rifle while I have a fowling-piece, for we hope to get quail also.

Monday, September 24.—At 1 a.m. we were called for our three or four hours' ride to the mountains, and, after a cup of chocolate, mounted our camels, attended by two native drivers, and two others noted as hunters. It was rather a weird sight, that little procession through the desert in the pale moonlight; the natives, wrapped in their camelhair cloth robes, hardly looked like men, and even the two European figures on the backs of our scarcely less sure-footed than four-footed animals possessed only remote human resemblance. Rarely had three hours gone so slowly. With great difficulty I kept awake. Only

the thought of how very unpleasant—nay, probably disastrous—a tumble from my camel would be, prevented me falling into the seductive arms of Morpheus, and down to the ground amongst our camels' hoofs. At 4.30 a halt was called, for the moon had set, we were getting into the mountains, and, indeed, were only about a mile from the small ravine where we hoped to find at least one hyæna in its den. Having dismounted, I was asleep on the sand within a minute, and continued so until awakened by one of our Bedouins saying that the beginnings of sunlight showed it was time to start. We remounted, and tracing our way over some very rough ground, soon arrived at the entrance to a defile. Here we left our camels. We were now within a few hundred yards of the place where the hyenas had their cave—in fact, in one of the paths in which they were in the habit of feeding, as was clearly indicated by the numerous bones that were strewn around. Here we held a council, and, as the den was known to be situate in a narrow horseshoe-shaped ravine that had an entrance at either end, we divided our party, De Laugier and one Bedouin taking one entrance, while I and the second Bedouin made a short détour to reach the other extremity. Midway from each end was the cave used by the hyæna family, for our Bedouins assured us there were a dog hyæna, a bitch hyæna, and a pup hyæna. Now I rapidly looked over my weapons namely, my trusted gun, charged, alas! only with No. 3 shot, and my equally trusted revolver and big hunting-knife. My Bedouin had an old singlebarrelled muzzle-loading gun charged with a miscellaneous collection of shot, stones, and nails. I insisted that he was on no account to discharge this wonderful weapon except in case of grave necessity, for indeed it looked much more dangerous for himself and anybody close to him than for prey at a distance; parts of it being tied on with string and bound here and there with copper wire. Now both proceeded carefully to drop down the ravine. Suddenly we heard a shot and then a shout, and immediately after, rushing round the rocks towards us, came a big unharmed hyæna. I instantly gave it the contents of my right barrel. This caused the beast to stagger and swerve upwards, for the distance was only some twenty or thirty yards, but not to stop; so I also headed up the side of the ravine, at a closing angle with the animal, and rapidly fired two bullets from my pistol, the second being true enough to find its billet in the spine. Thus paralysed in the hind quarters, the brute rolled over powerless to the bottom of the short slope. Joined by De Laugier and his Arab, we instantly explored the remainder of the ravine, but of the other old one saw nothing. One of our Bedouins affirmed that the little one was in a deep crevice, but even if so it was quite out of reach without a small dog.

Returning, we were sorry to find our shot hyæna was still living. A bullet from De Laugier's carbine, through the heart, finished its struggles. Alive, the expression on its face was that of concentrated cruelty and malevolence; dying, its look was hideous. The carcass was tied on to one of our poor beasts of burden, greatly to its instinctive terror.

The skin of this my first hyæna shall, sooner or later, find its way to Watford, there to be trodden under foot of mothers and others. With their feet on it in the victoria during the approaching winter, and on their knees the rug of the four prairie-wolves I shot in Wyoming, under the shadow of 'The Rockies,' in 1891, my small trophies from 'the West' and 'the East' will help to maintain my already warm place in the hearts of pater, mater, et sorores.

Of the three species of hyæna-namely, the striped, the spotted, and the unstriped and unspotted brown hyæna—my specimen is the first-named, the Hyana striata, the other two species not occurring in North Africa. It is fully grown and of fair size, being over five feet long from the snout to the end of the tail, and nearly four feet round the body. Its colour when first seen at a distance of a hundred or less yards is light brown; nearer it is found to have a dirty cream-coloured ground-fur, ribbed with dark brown stripes, and from head to tail quite a mane of long hairs having dark brown tips. Like all hyænas it evidently stood high at the shoulders (thirty inches) and low at the hips (twenty-four inches), the lower joints of the hind legs having a more or less horizontal trend like those of a cat. The muscles of its extremely strong crunching jaws and equally strong scratching forepaws are enormous as compared with those of other animals of its size. Small wonder that hyænas can crack up big bones and clear out deep graves.

The hilltops were golden with rays from the sun, as, remounting our camels, we headed for home.

I trust I have not dwelt unduly on this my first byæna hunt.

GAZELLE.

En route we saw the tracks of gazelle, and on a hill about half a mile off, aided by my most excellent Casella binocular (a recent present from Herts), discovered a band of six of these pretty creatures. From the position we were in it was next to impossible to have even a long shot at them without previously making a very long détour through soft sand in which one sank to the ankle. One of our Bedouins said if De Laugier would lend him the rifle he thought he could stalk them, so we let him go. Soon after we heard a shot in the distance, and on riding up found that the man had hit but not killed, for we traced the blood spots for a mile or so, without, however, getting near the animal, so, reluctantly, had to give up the pursuit. The fellows said that one of them would be sure to find the gazelle next day—which he did, and brought it to me at Suez [see page 164].

A FRIENDLY TAMARISK.

At nine o'clock we breakfasted in the shade of a large tamarisk, a specimen of the real Tamarix orientalis, an actual tree, growing to the height of ten or twenty feet. We also have here the Tamarix africana, a shrub not unlike the French tamarisk, Tamarix gallica, which my people will remember as growing so plentifully and hedge-like at Felixstowe,

in Suffolk, and at many other seaside places in England; but the *Tamarix africana* has darker bark and larger flowers than the friend of my sea-bathing and sand-castle-building days.

In the desert scrub we 'put up' several quail which were soon 'put down' and added to our game bag. I also had a shot at a magnificent eagle, but his plumage was too hard for my quail shot, and he flew away with the loss only of a few feathers. After leaving our friendly tamarisk tree, we visited the den of another hyæna, but found it untenanted. In this as in the other den there were numerous human remains, obvious enough to any anatomical eye. On the confines of the desert corpses are always buried deep and well covered with big stones to protect the bodies from the hyænas.

After an hour or so of increasing desert heat, we arrived at Moses' Wells. There enjoyed a rest and luncheon. After that and a short siesta, started for the Lazaret landing-stage, where a launch was waiting for us. Half an hour's steaming brought us to the Santé. Soon afterwards Suez was reached. A very delightful two days' excursion.

At the hotel there was a letter from Aunt Alice giving good news from Mistley. Many thanks to her.

Tuesday, September 25.—Duty day. Few ships up. Visited one of our new British cruisers which was taking in coal. She was the Crescent. An interesting half-hour was spent in going over her and having a chat in the wardroom. She was carrying a relief out to Australia. Had dinner on board the Gannet, and, getting off to sleep at the Santé soon

after ten, was not disturbed until the early morning. The gazelle wounded by the Bedouin yesterday was brought in to-day. In spite of a broken foreleg, it had for a time been able to escape its pursuers.

More Welcome Letters.

Wednesday, September 26.—At 5 o'clock a.m. a P. & O. ship arrived, and on going on board found that the captain was Langbourn, a friend of Tom Farries, under whose hospitable roof at Watford I had met the captain just before leaving England. To-day a mail came from home bringing letters from the father, sisters May and Gertie, and also one from my old German friend Steeb, of Würzburg; all dated either the 18th or 19th. Correspondents will please notice that I record every letter-date.

Thursday, September 27.—Little of interest to-day, beyond the arrival of another mail. Three lots of letters this week! Among those of to-day was one from our family's good friend Mrs. Flint. I do so appreciate these links with old England. The pengossip of any reader of my Journal will be welcomed.

Friday, September 28.—Duty day. The Gannet went out for gun practice. Had to be content with watching the smoke and hearing the boom of her big guns from a distance of five or six miles; would like to have been on board.

Had orders to-day from the Government to examine Blatteis in company with Creswell, who is the only other Government medical man in Suez outside our service, and the rules are that for an examination of this sort, *i.e.* to grant medical leave, two Government medical men must certify as to how much leave is necessary.

Saturday, September 29.—Came off duty at nine this morning. Have to go on again at seven to-night, for Marcopoulos is not very well, and has begged me to take his night duty.

A GYMKHANA.

At 3.15 this afternoon all the beauty and élite of Suez went by special train to the 'Camp,' where there was a 'Gymkhana,' an Indian word scarcely yet naturalised in England, meaning a meeting for humorous athletic sports. The appended programme will describe the nature of the races. Steered by Miss Norrish (a daughter of the British Consul, and engaged to one of the telegraph people), the writer won the first event, and had a good chance for the third, an egg race, but after getting the egg in his mouth, somebody fell on him and completely prevented his rising. A mouthful of fresh egg and egg-shell, though not incompatible with irresistible laughter, is equally irresistibly inconvenient. I also entered for, and greatly enjoyed, the last and most hilariously absurd race.

The meeting was held within the grounds of the Victoria Hospital, a short distance from Suez on the freshwater canal. Much bunting was flying from the bungalows around, and the band of the local Philharmonic Society discoursed quite delightful music. Refreshments abounded.

Event No. 1.— 'Guiding Star' race.—Gentlemen to be nominated by ladies. Start on foot, blindfolded, run to place indicated, pick up the object bearing number corresponding to competitor's, return with and place it on its number at the winning post. Ladies allowed to guide their nominees with a stick, but not to touch them otherwise. Prize, objet d'art. There were ten entries.

- No. 2.—Donkey mêlée.—H.M.S. Gannet, Port v. Starboard. Prize £1. This, the most amusing event of the day, creating much merriment and roars of laughter, was between two teams of bluejackets, six on each side, mounted on donkeys. The contest was fast and furious, and finally the men of the port side succeeded in unseating their competitors.
- No. 3.—Fresh-laid egg race.—For gentlemen. Competitors to start with hands tied behind their back, run to place indicated, pick up with, and carry back in, the mouth an egg. Prize, travelling picnic basket. Eleven competed for this race.
- No. 4.—Ladies' hoop race.—Ladies to trundle a hoop over course indicated by Committee. Prize, objet d'art. Eleven entries.
- No. 5.—Children's races.—One for boys and the other for girls. Prizes, toys. Thirteen boys, ranging in ages from three to ten years, entered for the former race. For the girls' race seven competed.
- No. 6.—Donkey screen race.—For gentlemen. Rider to sit on saddle reversed and face towards donkey's tail; ride through a paper screen to winning post. No whips or sticks allowed. Prize, objet d'art. Eleven entered for this, the final event on the card.

It caused much amusement, especially amongst the juvenile portion of the audience.

At seven went on duty again, and was fortunate enough not to have any ships up till eleven o'clock, so was able to enjoy dinner comfortably on board the Gannet.

Sunday, September 30.—On coming off duty this morning at 8.30, went to the gunboat and had breakfast, and afterwards attended the religious service on board.

Monday, October 1.—During the last two or three days there has been a mild outbreak of scarlet fever at the Eastern Telegraph Company's quarters, and I have been called in as a specialist in hygiene to consult with Creswell as to the best preventive measures, improvements in sanitation, &c. The drainage of the town generally is being modernised. On all sides one hears that Suez is, ordinarily, an exceptionally healthy place, and has an exceptionally healthy and delightful climate. This is good news, but affords no good ground for relaxing our efforts to make it still healthier. While the drainage works are going on, the air is suggestive of dis-ease rather than ease and health.

Tuesday, October 2.—Nothing of note to-day beyond the ever-welcome arrival of a mail; in this case bringing letters from the father and from Blackheath, dated September 21, and a card and a book from Mistley postmarked September 22. My friends will please make inquiries respecting any of their letters the date of which is not mentioned either in my Journal or in my more private letters.

BRITISH PROTECTION.

Wednesday, October 3.—To-day paid a visit to our British Consul, by name Norrish. He is a most pleasing official and a gentleman. Took the opportunity of investing a fee of five shillings by way of registering myself at his office, for, without doing so, one cannot claim protection as a British subject. In the afternoon we had a cricket match, E.T.C. v. Gannet, in which I was playing for the latter, and regret to have to report a somewhat crushing defeat for the ship.

Thursday, October 4.—On duty. One of our menof-war, the Boadicea, went through the canal this morning. She arrived before I came on duty, so I had no opportunity of going on board to see her. (No pun intended.)

EGYPTIAN MOSQUITOES.

The muskito (musketo or mosquito, a culex) is very troublesome just now. The old inhabitants of Suez say that the insect is more poisonous at this time of year than at any other. It is quite as persistent as the ordinary Egyptian fly, but alas! a hundred times more cunning. For example, while one is sitting at the type-machine the wee things settle on the under side of one's wrist and give most unpleasant bites. With similar acuteness they attack your ankles just above the shoe and where the sock is stretched and thinnest. You soon become aware of their presence.

Friday, October 5.—To-day some excellent sports were arranged by the Suez inhabitants for the sailors and marines of the Gannet as a sort of return for the hospitality shown by these good-hearted naval men. Some of the races caused great amusement to the large crowd of all nationalities which had assembled at Terre-Plein to watch the contests. Perhaps the most popular were our ordinary English sack and obstacle races.

A RIFT IN THE LUTE.

Saturday, October 6.—A sad accident occurred to my much beloved banjo this afternoon. While playing, the skin of the drum suddenly cracked and rent from side to side. Unfortunately, too, I am down to play at an approaching concert. The skin had, however, fairly worn through. I have drum-drummed it since '87 and given it pretty hard use in all sorts of places and climates, so suppose I ought not to complain. It has stood the tightening sub-zero temperatures of the western hills of America, the burning glows of eastern rocks and mountains, the damp fogs of the Atlantic, and the parching and shrivelling influences of an Asian and an African desert. Good old cuticle! Requirescat in pace! Rest in piece-s. I cannot be consoled for nearly a month.

Down WITH FEVER.

Saturday, October 13.—Have little to recount for the past week, for most of the time have been in bed with a somewhat sharp attack of dengue fever. Last Sunday, while going on duty at 7.30 a.m., felt somewhat unwell, and by midday had a strong fever on me, and was so really ill that I was driven off duty to bed, staying there till Wednesday, when all fever had left me. Perhaps unwisely went out of doors a little, for at night had a relapse and was again ill until yesterday. To-day am all right again, except for a feeling of overwhelming lassitude. So, having got leave from Ferrari, have accepted an invitation to go for a convalescent trip down the gulf in the 'Ports and Lights' steam-tender the Aida, of which my good friend and neighbour Captain Murray is the commander. There is a ship ashore on a reef called 'Shab Abu Nahas,' which is a little to the north and west of Shadwan Island in the Straits of Jubal at the south end of the gulf, nearly 200 miles south of Suez. Murray is ordered to go and stand by her and see if he can render any assistance.

CONVALESCENT.

After boarding the Gannet to lunch and to say good-bye, for they are to sail this evening for Suakin, we heaved up our anchor at 2.30 and went away down the gulf with a light breeze behind us and a quiet sea around. Murray had another guest, a man named Robbins, who also had had fever; a sympathetic little party of three. The Aida is a ship of some seven hundred tons and capable of steaming fifteen knots an hour; so well appointed that she is more like a fine yacht than a lighthouse tender. I

have most luxurious quarters, consisting of a good bedroom, a sitting-room, and a bathroom, all on deck. This evening we had dinner on the poop, the sea being smooth and the moonlight ample and splendid. Am feeling better already for the cool breezes and fine air of the gulf.

Murray has to-day given me hints on navigation, a subject on which I am entirely at sea. It is a fascinating study, and there could not be a better demonstrating place than the gulf, which is considered one of the most difficult places in the world to navigate on account of the numerous shoals, reefs, and strong currents. We expect to reach Shadwan Island to-morrow soon after daybreak.

PIRATES AND SHARKS.

Sunday, October 14.—Had a most excellent night's rest for an invalid, sleeping soundly until 6 a.m., when I was called, by my previous request, to go on the bridge to see the ship taken to a mooring, a somewhat difficult job, involving the turning and twisting in and out of numerous channels between the coral reefs. It appears that the vessel we have come to assist is on such a rasping bed and is so badly damaged that we can do nothing but stand by her to keep in check the picturesque but piratical natives, who have assembled like a lot of vultures round a carcass and evidently on the slightest pretext would loot the ship. Murray went aboard in the gig, a difficult and even dangerous job, as there was a big surf, and told the captain that unless our vessel were

recalled we would stand by him until another and more powerful ship than the Aida could be sent from Suez with pumps and divers. The poor fellow was very glad to see us, as he was in great fear of the natives. We counted twenty-six of their dug-out tree-trunk canoes or 'dhows.' He told us that had we not arrived to-day he would have abandoned the vessel, taken to his boats, and have tried to intercept some ship on its way to Suez.

At night after dinner had some exciting fishing from the deck of the *Aida*. We caught one shark; also two other big fish which together weighed nearly seventy pounds. It is hard work hauling in a heavy shark. This one was just five feet long.

CLEVER DIVERS.

Monday, October 15.—To-day, the sea having calmed down a little, accompanied Murray to the wreck, the Yarrowdale. She has been discharging much of her cargo, which was some 3,500 tons of coal.

They dive and bring up big lumps of coal from a depth of twenty to thirty feet. The cleverness also with which they manage their tiny craft in the surf, and the very neat manner, even elegance, of their diving, is really wonderful. Then the water is of great brilliancy and clearness, so that one can watch the men swimming about at the bottom. The length of time they can remain under water is marvellous, namely, one and a half to two minutes.

WHY RED SEA RED.

To the clearness of the water, just mentioned, is due, apparently, the origin of the name Red Sea, given to the waters south and (formerly) north of these 'Straits of Jubal.' For an old writer says, 'the Rede Sea is not more rede than any other sea, but in some place thereof is the gravelle red, and therefore men clepen it the Rede Sea.' [But see p. 251, 'Red Lake.']

The captain came to dinner to-night and we succeeded in cheering him up a bit; for he was terribly

depressed.

Wednesday, October 17.—Yesterday and to-day have been spent in reading, sleeping, eating, and fishing. One catches most extraordinary-looking fish of all sorts, sizes, and colours, as to the names of which nobody here has an idea. The absolute rest and sea breezes are doing me 'worlds of good,' and nearly all my lost strength is recovered. It is surprising how very weak a few days of fever can leave a man. Captain Murray expects the Egyptian Government steamer, with pumps, divers, &c., tomorrow, and then the Aida will return. Among the natives I recognised some from Tor, and exchanged greetings with them. They evidently recognised me as the 'gun' man. [See note on June 17, page 55, 'Pistol Practice.' On board the wreck this morning we had a most sumptuous breakfast, a first-rate English ham being one of the dishes. Commend me to British sailors for being calm, cool, and even hungry, within sight of pirates' knives.

HARD ON THE 'YARROWDALE.'

Thursday, October 18.—Early this morning a Rubattino liner (vide May 13) came in fairly close, and gave us the following message by means of flag signals:—'Return at once to Suez; the Government is sending a steamer with assistance for the Yarrowdale.' Personally, I was not sorry for us to have this imperative recall, for, having recovered my strength, sitting on a steamer at anchor was becoming rather wearisome; but it was hard on the Yarrowdale, with those vultures around. About 8 a.m. we hauled up our ground tackle, and, signalling a regretful adieu to the Yarrowdale, started on our return journey, with a strong head wind. This wind soon freshened, and we had one of the worst pitchings I have ever experienced on a steamer, but fortunately no rolling. My sea-going capacities are now most satisfactory, for beyond the feeling of not caring to smoke I was in no way inconvenienced by the continual vertical motion. Just after dinner at night we passed the new P. & O. ship the Caledonia; she looked grand and beautiful in the moonlight.

SUEZ AGAIN.

Friday, October 19.—At 4 a.m. this morning awakened by the engine-room signal, and looking out found we were back in Suez Roads. Very soon afterwards had breakfast, and went down to the Santé and reported myself fit for active service; in fact, went

straight on duty. Only two vessels came up during the daytime.

Since I have been away Blatteis, one of my two colleagues, has gone on leave to Europe. It will be better for him and for us if he never returns, for he is not strong enough for our work.

Two of my guards, Italian subjects, have challenged each other to fight a duel. There appears to be no law to prevent them carrying out their idiotic idea of shooting at each other for the sake of supposed wounded honour.

Five weeks ago I spoke of condensing the accounts of daily doings, to avoid becoming tedious and dull, and have since given very few daily lines, except when telling of shooting, hunting, and fishing. But for the second half of my first twelvementh in Egypt my friends will please take for granted most of the details of duties and of professional labours, and much of my already told rounds of recreation. I shall hope, however, to meet with enough of incident to keep me, as I said, in touch with all old friends—at all events for one complete year.

By the mail which arrived last Thursday there were letters from the father, October 8, from sister Gertrude, of the 4th, and a long one from the mother, dated September 30. Thanks, many.

Saturday, October 20.—A heavy night of duty; no lying down till 4.30 a.m. In the afternoon had enjoyable tennis at the club. The Creswells, with Miss Towgood and De Lacroix, had dinner with me at Terre-Plein. Afterwards all had a pleasant stroll by the canal side, and listened to the Canal Company's

band, which was playing opposite the 'Residence' in honour of one of their chief officials, who was staying there for the night. The evening was beautiful, with a bright moon, and the canal, in which a big British transport was moored, looked charming.

SUEZ GARDENS.

Sunday, October 21.—A delightful day of rest, not going out till sunset. Strolled through 'the gardens' with De Wilton of the Customs. These market gardens were bare desert a few years ago; but such is the fertilising effect of Nile water, brought here by the sweetwater canal, that where there was nothing but arid sand there is now a pleasant promenade, with grounds in which are cultivated all sorts of fruit, vegetables, and flowers.

Monday, October 22.—Duty day. An unusually large number of steamers arrived during my twenty-four hours of service. Among them was a P. & O., on which my friend and landlord, Hammond, the acting E.T.C. chief, had taken a passage, for he is on sick leave. It is probable he will return to Suez, but as the lease of his house expires at Christmas, I have arranged to be tenant till then. A very good fellow named Lichtenberg, son of the great man of business who is 'Wills & Co.,' will join me in housekeeping.

Tuesday, October 23.—On coming off duty went on board the Messir to breakfast with an engineer first met at El Tor. His vessel is docked at Port Tewfik for repairs. One does not fully appreciate what a wonderful structure a large sea-going steamer is until one sees her high and dry.

ARABIC.

Wednesday, October 24.—At last feel that I am making a little progress with Arabic, but it is terribly difficult. The writing is all from right to left—backwards, as we should say. To our twenty-one consonants they have twenty-eight. There is only one vowel in their alphabet, the other vowels being indicated by signs placed above or below the consonants. The form of nearly every letter differs according as it is placed at the beginning, middle, or end of a word. Letters and figures are not distinct hieroglyphics, as in Europe, but certain letters are also used for figures. The pronunciation of the short vowels is changeable, and they bear no simple relation to each other in, alas, the many different dialects. There is no indefinite article in Arabic; there is no possessive pronoun. Pity me!

A RICH MAIL.

This evening arrived a welcome and abundant mail, in which were two letters and a card from the father, and one each from the mother and May, the dates being from the 15th to the 17th inclusive. Thanks, many, for these, for the usual weeklies, and to some kind Watford friend, probably T. F., who has sent me 'St. Paul's' and the 'Field.'

Friday, October 26.—Yesterday (25th) was duty day. Ships kept arriving pretty regularly all through

the twenty-four hours. On coming off at six o'clock this morning found a note from Creswell, asking for my assistance at a major operation.

Saturday, October 27.—Continued the tennis of the 26th, and, after two long sets, won the odd event, and so the match. Afterwards had a most successful tea party in my rooms. It quite reminded me of my old Cambridge days, the more so that several of my guests knew Cambridge well, and remembered some of my friends there.

The temperature during the day does not decline much; it keeps pretty steadily at 80° F. The nights, however, are a bit cooler, and there have been some thick fogs over the canal in the early morning. Feel no effects of the fever that prostrated me three weeks ago, and now have normal strength and vigour.

A SHIP LOOTED.

Sunday, October 28.—A steamer has just arrived, bringing up the men from that shipwrecked vessel the Yarrowdale, recently visited with Murray. It appears that the ship was boarded by the Arabs (see my note of the 14th), and that the captain and crew had to abandon her immediately. She has now become a total wreck. The relief steamer being useless was recalled.

Since writing the foregoing have seen the captain of the *Yarrowdale*, who tells me that the work of getting the ship off was progressing favourably when one of the stern ropes parted and the vessel drifted further on to the reef. This moment was seized by

the ready natives for boarding; which done, they told the captain that they would now take charge of the ship and if anybody tried to prevent them he would so act at his peril. As these people were fully armed and the ship's company had only one pistol between them they wisely left the vessel in one of their boats, and rowed to the Island of Shadwan, the lighthouse keeper of which signalled a passing ship and so all arrived in Suez. The captain states that there were some three hundred or more of the rascals. It seems strange that such open piracy as this can go on within 160 miles of Suez and in the much frequented waterway of the Gulf, but is not astonishing to those who know somewhat of the character of the dwellers in the deserts on either shore.

WELCOME LETTERS AGAIN.

Monday, October 29.—Had busy duty yesterday, and ships were coming up all through the night. A mail arrived with letters from Uncle Smith and Auntie Nell, both dated October 22, also one from sister Gertrude with a packet of Kodak pictures bearing date 21st, one also from my dear old grandmother (born 1813) in her own handwriting. Many thanks to all. Letters from home relations and friends are indeed welcome in this far-off place.

Tuesday, October 30.—Several of my correspon-

¹ 'Cairo, Feb. 27, 1895.—The magisterial inquiry into the pillaging of the steamer Yarrowdale, wrecked in the Red Sea, has ended in the arrest and committal of 103 wreckers. Their trial, for robbery with violence, will take place at Zagazig.'—Times, Feb. 28, 1895.

dents have asked about the fruit and vegetables we get in Suez. In the gardens by the sweetwater canal there grow plentifully grapes, figs, dates, and to a lesser extent bananas. Am told that in the spring Suez has abundance of apricots known by their Arabic name mish-mish. As regards vegetables, most of our home plants grow very well, and in addition there are numerous kinds, the names of which I have no means of obtaining.

Had good tennis at the E.T.C. courts. It was their 'at-home' day and all the tennis people of Suez were 'en évidence.'

EASTERN BRIGHTNESS.

Thursday, November 1.—Yesterday on duty. For a change had pretty easy service, so devoted several odd hours to writing. In the afternoon had tea with friend Mavros and saw the most beautiful of the many beautiful sunsets it has been my good fortune to witness since landing in Egypt. The lovely coloureffects were much heightened by the rare presence of many clouds in the eastern sky, hence the after-glow was remarkably fine. To-day received welcome letters from the mother and father bearing dates of October 22 and 23. In the afternoon played golf down at Terre-Plein with the Creswells. The 'putting' greens have badly suffered by the absence of the Gannet, whose officers being one and all enthusiastic golfers saw that their men kept the links in perfect condition. In the evening dined with De Wilton Bey, the Director of Customs here.

A SWEET BITTERN.

Friday, November 2.—Up at five o'clock and went with Creswell to have a walk through some marshes with our guns. The bag, after a pleasant though somewhat muddy stroll, was made up as follows—two snipe, a large sort of starling, and a sweet bittern which we are to have for dinner to-night.

A bittern is nearly as large as a heron. It has an excessively sharp bill and sharper claws. It was common in England when the country was marshy, but is now only met with in the fens. It is usually tender when freshly killed and is fairly good eating.

We are trying to arrange an expedition in three weeks' time to Tel-el-Kebir, where we hope to get excellent shooting, for sportsmen say that its neighbourhood affords so many game birds that one needs at least a hundred cartridges a day.

Saturday, November 3.—On duty. Up to 5 p.m. in the early morning only one ship. Later, several; among them a large English trooper with 1,300 soldiers on board.

Had dinner, in part, with Mavros, for when barely halfway through was called away by an approaching vessel.

Sunday, November 4.—This morning, on coming off duty, which was exceptionally heavy, ship after ship arriving all through the night, sent in an application for a few days' leave to visit my dentist in Alexandria, and hope to start immediately after relief from duty next Wednesday.

Have been promised a pretty little kitten from the Eastern Telegraph Company's stock directly it is old enough to leave its mother. I have been longing for such a pet ever since leaving home.

GUY FAWKES DAY.

Monday, November 5.—Was this morning in the office of the chief of the Post here, when one of his subordinates brought in to him a letter full of fire crackers, and these not being considered things to be allowed in a mailbag, we experimented with several and so kept in mind the 'gunpowder treason and plot.'

In the afternoon had some good golf. It is a more difficult game than one would expect. It also conduces to the use of language that can hardly be termed proper.

ALEXANDRIA AGAIN.

Wednesday, November 7.—Dr. Marcopoulos kindly relieved me an hour earlier than usual in order that I might have more time to pack and make arrangements before starting for Alexandria at 10.30 a.m. The journey was without special incident beyond having a first experience of rain for six months. Six months without rain! Think of that, ye dwellers in the oft-flooded valley of the Colne. At Ismailia, on the Suez Canal, noticed a few heavy drops, but on nearing Alexandria we ran into quite a storm. On arriving there found that they had had a very great deal of rain. The state of the streets was horrible.

Such mud I have rarely seen, many parts of the town

not being paved.

At Tanta, where we had last parted (vide June 4), I had been met by my friend Consul Inglis. MunGavin liaving telegraphed him that I was coming by the afternoon express, he was kindly in waiting for me with a whisky-and-soda which, after eight hours of dusty travelling, was very acceptable. On the station at Alexandria also were several friends, among whom were MunGavin and Zachariadis. MunGavin took me off to his hotel and gave me a most enjoyable dinner, after which we went to the Paradiso Theatre and saw a pretty French comic opera. In the theatre met Zachariadis again, and had a delightful gossip after the performance. Also saw Ward, my dentist, and made arrangements to visit him professionally to-morrow.

Thursday, November 8.—At nine this morning went to the President and had a long business talk with him. He was most cordial, and asked me to dinner this evening and to go on afterwards to a reception. He also was kind enough to make me an honorary member of the club and to devise golf arrangements for to-morrow. I then called on Dr. Mackie at the German hospital. He, too, was very cordial, and told me about my people at Watford, at whose house he had been staying as recently as three weeks back. To hear one's relatives spoken of by one who had just visited them was the next best thing to seeing them. Thence for a two-hour attack on my teeth. Alas! there were no less than five of these troublesome yet essential portions of one's anatomy

that needed attention. Then to lunch and another two-hour attack. Subsequently made some calls on former friends, and then to the Miévilles to dinner. After delightful entertainment for body and brain, went to an enjoyable reception.

Friday, November 9.—This morning another interview with the authorities at the Conseil, during which, inter alia, I learned the welcome news that in all probability—especially if we get another cholera-free year—I shall be able, after the pilgrimage, to claim a long holiday. Two more good or, rather, bad—hours with Ward; then to lunch with the Miévilles, previous to starting out to the Sports Club at Ibraimiah, where we had arranged to play a match—the President and I against the Vice-Consul Alban and Captain Barker of the Artillery. An exciting game ensued, we losing the deciding hole by one stroke. In the evening had dinner at the club with our under-secretary, M. Zananiri, a good fellow, and afterwards went to a really superior circus.

Saturday, November 10.—In the morning office and dentist, and watched a cricket match between the Alexandria Club and the United Services. The former won by half a dozen or so runs after a close game. Then to the club, where Miéville and the writer played billiards. Went out to dine with the Allens at Ramleh, and at table met several of the people to whom I had been introduced last May. Have arranged to leave Alexandria by the nine train to-morrow morning, so as to get back to work on Monday. Am glad to say I shall have the company

of the President for the first three hours and a half of the tedious journey to Suez.

RETURNING TO SUEZ.

Sunday, November 11.—At a quarter to nine went to the station and found a carriage had been engaged for us, and was being guarded by one of our men dressed in a gorgeous uniform. At nine we left, and at about twelve Benha was reached. There bade adieu to Miéville, who went on in the same train to Cairo, I having to wait for nearly an hour. The branch of the Nile just outside Benha Station is in full flood—'high Nile,' as it is termed. The appearance of the river now is very different to what it was when I went over the swing bridge on June 4. Then one could almost throw a stone across. At Ismailia there was another halt. Eventually, Suez was reached at half-past six.

Monday, November 12.—No rain for six months! And only one week's journey from England, where, they say, a wetter six months has not been experienced for many years. But since I have been away there has been a great rainstorm here, as well as at Alexandria; and Suez, being absolutely unpaved, is in a deplorable condition. In one of the main streets there are places where notices might be posted, such as I have seen in some of the western towns of America—'No bottom here,' or 'Fishing not allowed.' The rain has, however, had the pleasant effect of cooling down the atmosphere, and one can go about in a cap or simple straw hat, without further need

for one's sun helmet. Had golf with the Creswells this afternoon.

Tuesday, November 13.—Only one ship up in the twenty-four hours. Health still excellent.

A PHOSPHORESCENT SEA.

Monday, November 19.—The water in the bay is just now more than usually phosphorescent. One may commonly at night see flashes of the lovely rays, which come, as is well known, from myriads of animalculæ, but this evening a gentle wind arose, and wherever the many little waves broke there appeared miniature billows of beautiful wisps and whirls of literally living fire.

HATS ON. HEADS OFF.

Thursday, November 22.—An amusing little incident occurred on board the only ship that arrived today—a Spaniard. As soon as I had made the visit and admitted them to pratique, my native guards came on board wearing their tarbooshes as usual, and we all went into the saloon to make out the papers. But, lo! the good officers were highly excited, and for the time overwhelmingly insulted because my men did not remove their head-coverings. I began to fear that hats on meant heads off and that I should have hideous tales to unfold. Only on my earnest assurance that a Mussulman never uncovered to anybody, were the sensitive fellows calmed down. For a time they were off their own heads altogether.

CORMORANTS.

Saturday, November 24.—A pleasant rest day. Cruised about the bay, fishing, shooting, feeding, and sleeping at intervals. After several unsuccessful attempts to get near enough to some cormorants to make my shot-gun of service—they are very shy—I took our small boat and Carew's '380 Winchester rifle, and by firing just on the rise of a big bird off the water at about 100 yards, succeeded in killing. Our bag of fish was decidedly mixed, for the first seven caught were of seven different species.

SUNSETS.

A great change has come over the weather. The heat is still considerable in the middle of the day, but at night and in the early morning it is quite cool, and one is able to sleep under a blanket without feeling unduly warm. We have had several heavy showers of rain, and have seen in the distance what must have been very severe thunderstorms, the lightning round the mountains being glorious. The sunsets here, at all times beautiful, are doubly so now, because the unusual clouds receive and reflect the slanting rays of the dipping orb and also foil the soft purple afterglow on the mountain sides.

MOUNT ATAKA.

Monday, November 26.—There is a project in view for having a day on Mount Ataka close by; but the

weather is rather bad and nobody seems very keen on the ascent, which seems to be interesting only because difficult. Two or three people have tried to reach the summit but have failed, 'on account of loose stones.' We shall see whether on proceeding to attack her in a friendly spirit she will not succumb. (That last sentence has the echo of a pun in it, I fear, but perhaps I am wrong.)

A HOLIDAY.

Friday, November 30.—A holiday. Went to the docks by the 7.30 train to meet Carew and go on board his cutter for a quiet day's outing. The wind being straight ahead, we got a tow from a Suez Canal Company's steamer, and went up the canal to Station 146. Here we met Creswell, who had ridden out on his horse. Taking our guns, we went for a saunter over rough ground with many watercourses, for the most part dry, in hope of finding game. Our bag was not extensive. It bade fair to be fuller, for I shot an eagle, but, alas! it fell just the other side of the canal.

Sunday, December 2.—There is another hyæna hunt in consideration; for one of these hated beasts has been killing several animals at our lazaretto at Moses' Wells landing stage.

AN OLD FRIEND.

Tuesday, December 4.—Duty day. Have been keeping an anxious look-out for the Manilla, the ship on which my old friend Dorman is surgeon. At 7.30 made out with my prized binocular a ship showing

three lights in a triangle, which is the P. & O. night-signal. The Company's launch was soon alongside our stage, and a few minutes afterwards I was shaking hands with the dear boy. Having given him pratique, we went below and had some dinner and a delightful gossip, there being, by good luck, no other ship in the roads; indeed, it was not until the pilot came off and the Manilla was just ready to leave that I was called to another ship. Dorman made me a present of several boxes of most excellent cigars. He has been good enough to take charge of a small case in which are a few odds and ends which will perhaps be acceptable to the folks at home.

DEVIL-FISHES.

This morning with an eel-spear I harpooned a small devil-fish (vide Victor Hugo's 'Toilers of the Sea'), and afterwards dissected it. What a wonderful means of protection nature has given this animal. When in difficulties and fearing capture by its numerous enemies, it, as is now well known, discharges from its so-called ink-sac a quantity of fluid that immediately renders the water opaque for some distance round, thus literally putting its pursuer into a sea-fog. There were a dozen or so swimming in perfectly clear water just under our landing stage. It was instructive to see that the moment the harpoon went near them the 'ink' was discharged and the fish completely hidden from our sight. These octopods (i.e. eight-footed, or sucker-furnished, eighttentacled, ugly animals) are timid; but, at bay, will turn and bite with their beaks.

A RUSSIAN CRAFT.

Friday, December 7.—Among the ships that came up to-day was the St. Petersburg, one of the Russian Volunteer Fleet. Having given her pratique, the captain took me round the vessel, which is a very fine English-built steamer, capable of doing nineteen knots (twenty-two land miles) an hour. On board was His Excellency the Governor-General of all the Russian Prisons. We had an interesting chat, over a glass or two of champagne, in the captain's cabin.

SUNSHINE.

Sunday, December 9.—The weather now is glorious, hot in the middle of the day, but delightful in the morning and afternoon. I wish we could export some of our sunshine to England. If we could only compress it into light cakes here and send it over and let it loose when required, what a change one could make in our somewhat sunless isle.

A RUSH RAFT.

Friday, December 14.—To-day have been on a delightful little picnic with the Creswells and two of the Gannet men. We went to a place called Genefve, a few miles from Suez, and close to the Bitter Lakes of the canal. We took guns, and only met with indifferent sport, but had great fun. Fired at a magnificent fox, but, having light shot in my gun,

and the distance being over sixty yards, Reynard got off with an apparently whole skin. Later in the day we saw another, but did not get a shot at him. We all had to cross the canal on an improvised raft of rushes. These are wonderfully buoyant, for a bundle of them supported at one time two of our party and a small Arab.

GOOD-BYE, 'GANNET.'

Sunday, December 16.—Duty day. Alas! the Gannet has gone. She left, en route for Port Said and Malta, soon after nine this morning. Luckily there were no ships coming up, so I was able to take my launch and steam round them, and exchange a last adieu as they entered the canal. Going up past Port Tewfic, they were saluted by one and all of the various shipping companies.

Later on in the day met Consul-General Sir Charles Cookson. He was down to hear a charge against some Maltese who are British subjects. He was very kind to me while I was in Alexandria in May, and seemed pleased to see me again.

A NARROW ESCAPE.

During the day we had a most violent storm. The waves were so strong as to breach the railway between Suez and the docks. In consequence of this Dr. Creswell narrowly escaped a serious accident. He had occasion to come to Port Tewfic, and, as no trains were running, took a donkey. The road was impassable after the storm, so he had to use the railway track, and, while riding along, an engine going

to the breach came up unexpectedly and without whistling. He had only just time to slip from the saddle and escape by the breadth of a hair. The unfortunate donkey was cut to pieces.

ANOTHER OLD FRIEND.

Monday, December 17.—Just before coming off duty this morning, at 7.30, I gave pratique to a P. & O. steamer from India, on board of which was my good friend Herbert Harford, who was on his way home to Bushey, near Watford, which place he hoped to reach by Christmas Day. It was particularly pleasant to have a chat with him, the more so that he had seen my people at home many months more recently than I had.

To-morrow I start for Cairo to meet the President, and to have two or three days of what is certain to prove valuable, interesting, and pleasant experience.

In Cairo.

Wednesday, December 19.—In Cairo. After an uneventful and somewhat tedious journey of nearly eight hours, reached the capital early yesterday evening. The President arrived from Alexandria soon afterwards. Having dressed, we had a well-served dinner in the big saloon at Shepheard's. This hotel is known all over the world as being most comfortable, and as always affording the best society.

This morning Miéville took me to see Lord Cromer, G.C.M.G., Her Majesty's Plenipotentiary in Egypt, on some business connected with our Service. His Lordship was most gracious, and was good enough to say he had heard of me as doing very well at, and in connection with, Suez. After this we went to call on various other influential people. Then to the Turf Club, where Miéville made me an honorary member during the stay in Cairo. Here we received an invitation to lunch with Prince Omar, a cousin of the Khedive. We were a party of four, and a toothsome lunch we had, in a private apartment at Shepheard's. Afterwards we drove out to the Gezireh Race Course, where was to be held the first winter meeting. The sport was good, there being some very close finishes.

OLD CAIRO.

Thursday, December 20.—Directly after breakfast this morning went with the President for a saunter through the old portion of the city. Here it is that visitors find the well-known bazaars. The strongest sensation of contrast is excited in driving from the modern 'Ismailiyah' quarter, which resembles Paris with its broad boulevards and fine modern houses and palaces, to the ancient, richly Oriental, and quite distinct part of Cairo. The old portion is divided into districts, separated from each other by gates, through which in former days no one was allowed to pass without being questioned by the guard. Time would only allow of a cursory visit to the various extremely interesting native shops, in which may be bought beautiful examples of Oriental industry in the form of

carpets, gold and silver work, and many other things. On some future day I shall spend quite a long while in this old-time place.

CAIRO ART.

On our way back to the hotel, where I was to be called for by the coach going to the world-famed Pyramids, we visited the workshops of a famous art furniture maker. Here we saw lovely specimens of modern 'meshrebiyeh' wood screens, of which I purchased a specimen to send home. The work consists of a delicate tracery. Different woods are turned into short spindles, which are pegged laterally into wooden spheres. A single screen may contain many thousands of separate pieces. The entire front of an old house may be a series of screens. They secure privacy yet allow of continuous ventilation. The pieces are all turned on a hand-lathe of the most elementary description, consisting of an iron bar on which slide some supports, and a chuck for holding the work. Motion to the lathe is supplied with the right hand by means of a bow. The cutting tool is guided and held by the combined use of the left hand and foot. The whole is only a few inches from the ground, on which the worker sits cross-legged.

Thence we went through the Esbekiyeh gardens, which are of the character of our botanical gardens in London, and contain a good typical collection.

GHIZEH.

Soon after eleven o'clock the almost ubiquitous Cook's agent and a well-appointed four-in-hand drove

up to Shepheard's and a party of some eight of us started en route for the Pyramids, near the town of Ghizeh or Gizeh. These are distant a few miles to the west and south of Cairo on the opposite side of the Nile, which is crossed here by a movable iron bridge opened at intervals to allow the passage of boats up and down the river. From the end of the bridge almost up to the Pyramids there is a fine avenue of acacias more than six miles long. Mena House Hotel was reached just before one o'clock. Next me at luncheon was the father of an old hospital friend.

THE GREAT PYRAMID.

The Great Pyramid was now visited. With the aid of two sturdy Bedouins I succeeded in reaching the summit. The other members of the party contented themselves with looking on.

From the top one had an extensive view over desert on the one hand, and, on the other, fertile plains with the Nile and Cairo in the distance. At one's feet was another huge pyramid, and a little further off, the great carved stone termed the Sphinx, with many small tombs and other pyramids. After a rest the descent was commenced. This is even more troublesome than the ascent, and would be somewhat dangerous if one had a weak head or were unacquainted with crag-clambering.

'Nothing in it.'

A few feet from the bottom we found the entrance to the interior, and, candles having been lighted and magnesium wire purchased, we went into the uninviting sloping shaft. I cannot agree with Miss Martineau that 'the inside is sufficiently cool and airy for the needs of an hour.' I was never in such a stuffy, evil-smelling place in my life. Groping on hands and knees in an atmosphere apparently deficient in oxygen, with only the light of two candle ends, unwillingly sliding down planes of polished stones into unseen depths, being informed that just to one's right was a sort of bottomless pit, climbing up a perpendicular face of rock by much-worn niches, all went to form an experience, interesting certainly, but an experience that I should not only think twice about, but a considerable number of times, before repeating. Having reached the centre in a state of profuse perspiration and incipient asphyxia, only to find 'there was nothing in it,' I came out again as fast as possible.

STATISTICS OF PYRAMID.

For accounts of the many pyramids hereabouts I must refer my readers to any cyclopædia. The one I climbed was the highest, 480 feet, that is to say, nearly 140 feet higher than St. Paul's Cathedral in London. Its base occupies thirteen acres. It is known as the Cheops Pyramid, after the prince who built it. It consists of tier upon tier of massive masonry, each step a great deal higher than a common dining table, though less high nearer the summit. The climbing of these is extremely fatiguing. Fancy having to get on to a table four and a half feet high, and then finding over 100 more such tables to

surmount. Some of the pyramids are constructed of brick. After looking into learned dissertations about these (sepulchral?) monuments, I come to the conclusion that nobody really knows much of their true raison d'être. There are similar but still larger pyramids in Mexico. One may reasonably conjecture that they, and the round towers of Ireland, and other mysterious structures all over the world, had to do with the religious ideas of pre-Mosaic peoples.

As for the laborious climb up and down, inside and outside, the huge Cheops Pyramid, one is well rewarded by the fuller realisation one gains of the character of this massive structure, to say nothing of the comprehensive and interesting view one has from the summit.

THE SPHINX.

Time would not allow of a visit to the Sphinx, the largest of the sculptures (sixty-two feet high) of the devil-god of drought that are to be seen in various parts of the world, so had to be content with the view of it from the top of the Pyramid.

Having been duly mulcted in 'backsheesh' by guides and others, walked back to the Mena Hotel, and, mounting the coach, returned to Cairo.

CAIRO DANCES.

At night there was a good dance at Shepheard's, and, notwithstanding my being rather stiff from the day's work at Gizeh, I found that the charms of a fine Hungarian band, a perfect floor, and good partners kept me going 'on the light fantastic' till the small hours.

CAIRO RACES.

Friday, December 21.—The morning was passed in calls, shopping, and a visit to the club. After luncheon we drove to the second day's race meeting. The weather was glorious, the sport excellent; while the tout ensemble of pretty faces, charming dresses, and lively music helped to pass a delightful afternoon. In the evening went to a native theatre, but was neither edified nor interested.

BACK AT SUEZ.

Sunday, December 23.—Yesterday left Cairo soon after ten, having had a charming fore-Christmas holiday, and at the same time, I think, having made some useful friends. Was fortunate enough to have company all the way to Suez, and so the somewhat tedious journey from ten to six was passed, if without incident, yet pleasantly.

CHRISTMAS DAY.

Tuesday, December 25.—Christmas Day. Also the first time I have ever been away from my own people on this festive anniversary.

During Christmas Eve was on duty, and a very busy time ensued, there being over a dozen ships up during the twenty-four hours of service.

On returning to Suez from the docks this morning, found a large collection of letters and cards from my numerous relations and friends in England. It

was indeed pleasant to realise that though separated by nearly 3,000 miles of sea and land one was by no means forgotten. I had eight letters and eighteen cards. Thanks, very many, to all for these welcome reminders of home.

Dinner at the Bagleholes' was a great success. We were a party of ten. My Watford present of a home-made Christmas plum-pudding was served ablaze, and was voted excellent by everyone. After dinner more people came in, and a merry evening was passed with toast, song, and dance, the party not breaking up till the morning.

SNIPE SHOOTING.

Friday, December 28.—Yesterday on duty. Plenty to do. This morning Creswell and the writer went to Genefve and had an excellent day's shooting, our bag consisting of a good number of the common snipe (Gallinago media, or Scolopax gallinago), the jack snipe, or judcock (Gallinago minor, or Scolopax gallinula), and the delicious duck termed teal in England (Querquedula crecca). I am gradually getting the knack of snipe shooting, for out of my last seven shots I killed five of these birds, which are well known to be difficult to hit in their rapid zigzag flight. In the evening we had some of our bag for dinner, and extremely good they were.

THE OLD YEAR OUT AND THE NEW YEAR IN.

Monday, December 31.—At night had a modest little dinner-party of my own, with the Creswells,

Bagleholes, and De Lacroix as guests. We 'saw the old year out and the new year in.' Le roi est mort, vive le roi.

1894.

'A jollier year we shall not see. But the' his eyes are waxing dim, And the' his foes speak ill of him, He was a friend to me.'

1895.

'And the New-year blithe and bold, my friend, Comes up to take his own.'— Tennyson.

1895.

Tuesday, January 1.—A day of private professional work for a change.

Wednesday, January 2.—Duty day. Much to do, for there were at one time no less than five ships waiting for pratique.

Thursday, January 3.—Dined on board the Melita with the surgeon, for whom I have been acting while he was away in Cairo for a few days. The ship leaves to-morrow for Suakin.

Friday, January 4.—The Creswells' picnic at Genefve came off to-day, and was a great success. There were Baglehole and his wife, Dr. and Mrs. Creswell and her sister, Lichtenberg, and myself. Creswell and I took our guns and had fair sport, getting some six couple of snipe.

Saturday, January 5.—Duty day. Have just given a bill of health to the Bürger Wilhelm, the ship which has succeeded in getting the Yarrowdale

off Shab Abu Nahas reef, and which hopes to return with that unfortunate vessel in a few days' time.

A CHILDREN'S TREAT.

Monday, January 7.—The Eastern Telegraph Company's staff this afternoon gave a brilliant Christmas and New Year entertainment to the children of Suez, including a Christmas tree laden with abundance of ingenious mechanical and highly amusing tangible toys, which were duly distributed. The joy and the abandon of the girls and boys were delightful to witness, were quite contagious, and were, if differently, yet equally as enjoyable to me as the fun at any gathering of their elders could be. At half-past five a general dance was started, in which the young and middle-aged joined with much spirit.

In the evening went to a party at the French Consul's house; cards, supper, music, dancing, following each other in pleasant sequence.

On returning to my quarters found three welcome letters from England dated December 30.

Tuesday, January 8.—Duty day. Usual routine.

This evening had dinner with the Haydens, whose house is close to, and in telephonic communication with, the Santé; hence I was as much on duty as if in the office. Not until after the meal and a cigarette was I called to a ship.

TRAVELLERS' PHOTOGRAPHS.

Wednesday, January 9.—My second batch of 'kodak prints' has just arrived from England. I

thus have now some 150 or 160 permanent photographs of the people I have met and the places I have visited within the past eight months in Egypt. I shall mount them in my own copy of my Journal just as the folks at home mount their duplicates in their copy. But my friends of Mount Sinai, of Tor, and of Suez are begging for the smaller sets in which they are interested. What is to be done? I must have more copies printed from the negatives, please. As for my own complete set, it is invaluable to me, enabling me to recall, so vividly, scenes on board ship, scenes in the desert, scenes on the mountains; friendly soldiers, sailors, pilgrims, monks; incidents of duty and of pleasure; tropical vegetation and the tropically picturesque; to say nothing of the associations and memories every single picture calls forth. Every traveller should carry a camera. It doubles the value of his eyes and of most of his faculties, directly or indirectly. Yet even in a photograph 'things are not always what they seem.' Here is one - 'a Sinaitic ravine,' in which a be-pistolled, bedirked, and, at the moment, hatless and coatless, stubbly-bearded, pipe-smoking, six-foot fellow, with his back to some rocks in shade, must surely be a brigand, and those poor, semi-draped praying figures, with their foreheads in the sand, be his possible victims. It was not so. My camel-driver was 'pressing the button, the kodak doing the rest,' and that is how 'the master' came into the picture. As for my weapons, and dress and undress, all is quite de rigueur for the hills and sands of an Arabian desert. The most sinister of marauding or piratical Arabs has

the profoundest respect for a British bullet behind British powder in a British pistol within easy reach of a British hand.

ORIGINAL RESEARCH.

Thursday, January 10.—Yesterday and to-day I have been busy in the hospital with Creswell. We have several unusually interesting cases under observation, and are doing microscopic work together in the hope of being able to throw fresh light on certain hitherto obscure points. Original research is fascinating, but difficult.

Last night Tuck, the superintendent of the Eastern Telegraph Company, gave a delightful dinner-party, which I had the pleasure of joining. We were ten in number; in years and aims harmonious.

A GALLOP ON AN ARAB.

This morning, after the hospital work, I had a glorious ride across the desert on 'Binks,' a true Arab belonging to Creswell. I am not quite accustomed to his English saddle, yet enjoyed the gallop much. In the afternoon had an exciting 'foursome' at golf, playing a dead heat twice against strong opponents.

Sunday, January 13.—On Friday was at duty's call; on Saturday at more private professional work. This morning had another refreshing gallop on 'Binks.' It is most exhilarating exercise. Moreover, the horse enjoys a spin across the desert as much as does the rider, for the lovely animal needs no spurring or

encouragement, but seems to go as fast as he can from the pure love of rushing through the air.

A French colleague has at last been appointed, and will probably be with us in the course of a few weeks. Gautier is the name.

Tuesday, January 15.—Yesterday on duty with the usual routine work. At night was relieved for a few hours to go to the Tucks' dance, which was most enjoyable.

To-morrow we (that is Mavros, Robson, De Laugier, and the writer) start for our few days of shooting at Tel-el-Kebir. (The natives pronounce it Ke-beer, the major accent being on the last syllable. It means 'the big mound.')

SHOOTING AT TEL-EL-KEBIR.

Thursday, January 17.—We left Suez yesterday by the morning train, having sent our tents, boat, and other heavy impedimenta with our servant the day before. Our destination was reached at three o'clock, and until dark we were busy getting our camp into order. It consisted of three tents—one to be used for cooking and feeding; one for Robson and De Laugier; and one for Mavros and myself, respectively. Having arranged for guides, &c., and had a good dinner cooked by means of a paraffin stove, we retired for the night, as an early start is necessary for that flight shooting which is best at daybreak. My tent proved a comfortable bedroom, and I was quite loth to get up when our man came, saying it was four o'clock, and that breakfast was nearly ready.

By a little after five we were en route for the sporting ground, three miles from our camp. We formed an odd-looking cavalcade in the misty moonlight, for we were voluminously muffled up to keep out the cold and damp at that early hour. Our walk led us through an extensive disused barracks, where was at one time accommodation for 18,000 soldiers, though now the place is a ruin. By this time the first signs of dawn were showing, and, as we went through a grove of palm trees overshadowing a small lake, the effects of moonlight, of shadow, of the deep red rays of the east piercing through the feathery palms, and of the mirror of water at our feet reflecting the crescent above, all went to form a picture, the beauty of which, I trust, I shall never forget.

After a further tramp of about a mile through a marsh, we arrived at our destination, namely, a neck of more or less dry land separating a practically impassable swamp on one side from a large lake on the other. Here we took up our stations to wait for ducks flying overhead to a favourite feeding ground at the other end of the lake.

MANY RUSHING WINGS.

Shortly afterwards I realised, for the first time in my life, the full force of the comparison—'the sound of their wings was as the sound of chariots of many horses running to battle.' Scarcely had a warning cry from Mavros, an old sportsman, passed his lips, when, with a tremendous whirr and rush, came the first big flight of ducks. How many there were one is unable to say, but they must have numbered

hundreds. The column, outstretched on either side, passed right over me, but before this novice could get finger to trigger they had come and gone into the still dark west. Soon the dawn brought us dim vision. Another flight came over us diagonally. Bang! bang! went the guns all along the line, rather in hope than in expectation. The birds were, in fact, too high for our shot to reach. However, with the dying away of the echoes of the four guns came another flight larger than the first. Into this hazy brown ribbon I let loose my Cogswell-Harrison, aiming at a specially dark spot, and brought down a big duck almost on the top of me. As the day grew many more flights came over, more or less near, and we got fourteen birds between us.

Robson and De Laugier now went off for snipe, while Mavros and the writer took the punt we had had built and went in search of more duck over the other side of the lake. The weather, however, was against us, being absolutely bright and clear, the consequence being that the birds were quite unapproachable. We only increased our bag by five duck and seven teal.

A SKY BLACK WITH BIRDS.

The quantity of birds is extraordinary, the sky being quite black at times, though it is not often that a flock comes within gunshot.

The shooting is difficult because one has to remain quietly crouching down—not infrequently in a mixture of mud and water—to avoid turning the birds off their course and so losing all chance of a hit.

Having had lunch in the punt, we went back to our

original embarking place and spent the rest of the day in walking after snipe. Tel-el-Kebir is said to swarm, as a rule, with snipe. This year, unfortunately, they are few and far between, Mavros and I only succeeding in getting some eight couple in our walk.

Having met the other two of the party, we made tracks for camp. Arrived there, an hour or so was spent in cleaning ourselves and our guns, a most necessary proceeding. I have only on one occasion been more muddy, namely, when, as a small boy, I ran away from my mother and fell headlong into a ditch of the most objectionable description. At such times there is nothing like 'honest water which ne'er left man i' the mire.'

Once away from the village, the district of Tel-el-Kebir is little better than a huge swamp with a few patches of open water, varying in depth from a few inches to as many feet. All species of marsh birds abound. Amongst the prettiest were the kingfishers, and there were others resembling plovers. I quite longed for some knowledge of ornithology.

A Case of Poisoning.

Sunday, January 20.—The sudden illness of Mavros brought our party to an end to-day.

Friday was the best day we had, but the weather has been all against us, and our bags have been comparatively small. Robson did the best on Friday with eight duck and ten teal besides a curlew and several snipe. On the morning of that day we got up as usual at four o'clock and enjoyed breakfast, during which meal I noticed that the sardines, of

which I had opened a tin, were not quite nice. However, we all, excepting Robson, ate of them. An hour or so afterwards Mavros shouted to me that he was not feeling very well. We went on shooting with indifferent luck till about eleven, when Mavros said he would go back, as he really felt ill. So we went to the boat, for we had been shooting on shore, and started for the other side of the lake. Halfway across were two shelters built of sedges, and as there were many ducks about we decided to each occupy one of the shelters for a time. Mavros feeling well again, I left him in his shelter and went with my Bedouin to the other, about a hundred yards off. Soon I had a shot, and a small flight of teal coming over, I let them have right and left barrels and killed three. Mavros' Bedouin then hailed me to come back, and on arriving I found my poor friend quite in a state of collapse; white, almost unable to speak, and with other symptoms of severe poisoning. We got him into the punt, and pushed across the lake as fast as possible. On shore I succeeded in finding Robson, and sent him to get a donkey for our invalid. But when it arrived the poor fellow was too ill to be able to sit on the beast. So we made a stretcher with the bottom boards of the punt and the paddles, and got four men to carry him as gently as might be back over the three miles of rough ground to our camp. Here was my professional stock of remedies, &c., and I was soon able to ease him, but he was bad until noon to-day. Even when I said good-bye to him this evening (Sunday), after the interval of fifty or sixty hours, he was still rather shaky.

Last night was very cold, and I presume I caught a chill in getting out to look after my friend, for I have about as severe a cold in my head as ever I remember to have experienced.

A HERO OF TEL-EL-KEBIR.

Before leaving this ground, stained, in 1882, with the blood of many good English soldiers, I paid a visit to the cemetery, in which are buried those who died at the battle that takes its name from the village. The place is very nicely kept. I send home with these sheets a rose I picked from the grave of an army doctor, 'who was shot while tending the wounded in the midst of the fight.' I wish I could send one to his friends—perhaps a son or a daughter, or, alas! a widow.

As an epitaph for the noble fellow I venture to offer W. E. Henley's heroic lines:—

Ever the faith endures,
England, my England—
'Take and break us: we are yours,
England, my own!
Life is good, and joy runs high
Between English earth and sky;
Death is death; but we shall die
To the song of your bugles blown,
England—
To the stars on your bugles blown!'

This morning we struck our tents and came home after what was, barring Mavros' misfortune, a very pleasant expedition. For though the birds were most wild and difficult of approach, we shot sufficient to be able to send all our Suez friends parcels of game.

My gun, the present from my good father, turns out thoroughly well. I like it more every shot I fire out of it. I only wish I had had the dear old boy out at Tel-el-Kebir to give him the chance of showing me, as his father so well showed him, how a shot-gun really should be used.

While waiting for the train, Robson and I had some pistol practice with my revolver. He is a good shot, and, between us, we rather opened the eyes of some of the natives by breaking up a small target of soft stone, piece after piece, at over fifty yards.

Monday, January 21.—Have been down to the docks to see Mayros. Found him much better, though he still feels the effects of his dose of poison. Probably a ptomainous fish affected him. Possibly something else. I cannot be sure.

DUTY AGAIN.

The weather here now is, for Suez, cool; that is, one is very glad of an overcoat in the night and early morning, but our days equal those of an English warm May or bright early June.

Wednesday, January 23.—Duty day. Few ships. Was having lunch with the chief of the engineering department of the Suez Canal, même chose as saying one was having a particularly good meal, when a ship came and I had to leave the repast with appetite half satisfied.

MIRAGE.

Sunday, January 27.—On duty yesterday. The day was remarkable for its clearness and still atmo-

sphere. During the afternoon there were some wonderful mirage effects over the hills and down the Gulf. At one time the horizon seemed raised much above the sea-level, so that a coming ship looked as if about to fall over a precipice. This form of mirage is termed by the sailors 'looming.' At another time you saw a perfect image of a ship that was actually beyond the horizon, and therefore itself out of sight, inverted in mid-air. Mirage is due to the refraction of light-rays when they pass from a denser to a rarer stratum of air, or from a rarer to a denser. A counterpart of the effect is 'a straight staff bent in a pool.' [Tennyson. See p. 119.]

A DANGEROUS FOG.

Early this morning a cold wind came on from the north, and the atmosphere being full of moisture, a dense fog was the result; so that after visiting two ships it was quite a difficult task to steer my launch back to the Santé. We had to go dead slow and sound our whistle every half-minute. Even under those precautions we almost cut a native boat in two and nearly ran ashore on the rocks ourselves. We had to 'feel our way,' for we could not with any distinctness see more than four or five yards around.

Thursday, January 31.—Had a long morning at the Arab hospital yesterday, helping Creswell with an operation. We have taken over from the French hospital the poor engineer who was so badly burnt several months ago (see August 26), but I am afraid the transfer is too late and that we shall not succeed in saving him.

LADY ANTIQUARIES.

At lunch to-day I met two interesting ladies, Mrs. Lewis and Mrs. Gibson, both well known in the antiquarian and literary world. They are en route for Mount Sinai, where they purpose to continue researches in the convent library, commenced and carried on during two visits in previous years. I believe they have already made some useful discoveries. Mrs. Lewis is the wife of an old don at Cambridge whom I knew in my college days. Mrs. Gibson is her sister. These two unattended ladies are undertaking a journey involving ten days of camelriding and much hardship and inconvenience. A most plucky proceeding.

In the afternoon had some enjoyable games at Badminton on the camp ground.

Saturday, February 2.—Yesterday was duty day. Among other ships that arrived was an Austrian man-of-war, on board of which I had a most pleasant time, her officers being particularly good fellows. One of them, the doctor, had breakfast with me this morning. I am to dine on board on Monday.

By the P. & O. service my racquet and billiard cue (from friend Dorman) arrived; many thanks. They have just come at the right time, for I have entered for two tennis handicaps, as well as a billiard match, next week.

NIGGERS AND FARCES.

This evening our Ariel Dramatic Club give their 'Nigger Entertainment,' followed by a 'Musical

Farce.' Afterwards there is to be a ball at the 'Cercle International,' which is a club got up by the foreigners in imitation of our 'Suez Club.'

Monday, February 4.—Duty day. Our 'Nigger Show' on Saturday night proved to be a great success, every part going off well. Four of us played a banjo march that was enthusiastically received and encored. Afterwards some of us went to the Cercle to reciprocate the politeness of the foreigners. It was a novel experience to me. They had several quaint dances. For myself, I soon joined in the fun, and continued dancing vigorously till a late hour.

PRACTISING GERMAN.

Creswell came down to the Santé about noon to-day to accompany me to lunch on the Austrian man-of-war. As ill luck would have it, just as we were about to sit down to the meal a ship came up, and duty obliged me to leave our friends; but, returning soon, enjoyed a sumptuous repast. The officers—there were some twelve at table—treated us throughout most hospitably. Several of them could talk a little English, but Italian and German were the languages chiefly spoken. The ship, the Fasana, is of an obsolete pattern, but none the less interesting. They had been cruising in the South Pacific; hence had many curiosities to show us.

Wednesday, February 6.—On coming off duty yesterday morning found letters from May, mother, and Gertrude; thanks many.

The Fasana left to-day. I am, personally, quite

sorry; for one has too few chances of talking German here, and since she has been at Suez I have seen a good deal of her doctor, who, knowing little English, has spoken nothing but German with me—to my great advantage.

Yesterday played off my billiard tie. In the first round I had drawn a bye; but yesterday afternoon had to play a man named Blagden, to whom I, receiving thirty points, had to concede one hundred in two hundred and fifty. I just won by some fifteen points. In the tennis tie this afternoon had bad luck, and that, combined, no doubt, with poor play on my part, brought a crushing defeat. My opponent, strange to say, is drawn as my partner in the doubles. It was, apparently, not a lucky day for me, for in a game after the match was over I had the misfortune to snap my new racquet across the handle when taking a rather hard volley. It was only the second time I had used it. The wood was faultily granular; not so fibrous as is essential.

TEMPERATURES HERE AND THERE.

Thursday, February 7.—On duty; up to the time of writing, 10 p.m., have only had two ships.

The temperatures here during the last two or three days have been excessively high. The local weather-prophets foretell a strong southerly gale in succession to our present dead calm. In England, I see, the already freezing temperatures are getting nearer and nearer to zero F.; here the thermometer is well over 70° F. indoors.

My friend Scott has come back from Europe, and is living with me until my landlord, Hammond, returns.

Health and general condition excellent. Now weigh twelve and a half stone (175 pounds).

Wednesday, February 13.—Have had an unbroken week of full professional work, public and private.

Friday, February 15.—By yesterday's mail arrived letters, ever welcome, from J. A., M. M. A., and the mater. Also a proof of part of my Journal, which I have corrected and returned, retaining all personal, and sometimes even possibly trivial, allusions rather than risk altering its original private character and simple naturalness.

Gautier and the French Suez doctor in Le Grand's place have arrived.

Sunday, February 17.—On duty yesterday. Busy in the day, but during the night slept undisturbed till 5 a.m.

A NEW FRENCH COLLEAGUE.

Gautier, my new French colleague, came to the Santé and went off with me to the various ships by way of learning his duties. Afterwards we lunched together and met Monsieur Budaw, who is in charge of the French hospital. These two men are old school friends, and have rarely met since until they arrived in Suez. They seem to be good fellows.

Gautier is apparently far superior to poor Blatteis. Of the latter there is no news. He was due several days ago, according to the terms of his $cong\acute{e}$, so he doubtless is too ill to return. At the hotel this

morning I met a genial young officer who was on his way to his station at Aden. We went up to the camp together to call on his transport officer, Captain Aves. Dined with the Bagleholes.

Monday, February 18.—Went into the marshes with my gun, but only saw two snipe. It turned out a bad day for shooting, for a strong gale arose, increasing after lunch to a hurricane that obliged all traffic in the Roads and Canal to be suspended. Gautier, who was on duty, was unable to visit a single ship until 2 a.m. in the night. Then he had a sad time, for, though the wind had gone down, there was a high sea running, and he had a bad attack of mal de mer. His first experience of Suez Roads was literally rough.

Tuesday, February 19.—On duty. Only two ships before 10 p.m.

Thursday, February 21.—Since Scott has been back I have played golf a good deal. The links here are very 'sporting,' and we have had some excellent games.

The pilgrim season is already commencing, the evening train being more than once late through having to pick up many pilgrims between Cairo and Suez. The season will probably be a full one, for pilgrims are starting for Jeddah much earlier than usual, last year's absence of epidemic encouraging them.

There is an attempt to keep up a carnival here, but it is not attended by much success. One sees only a few rather dilapidated masquers, and they wander aimlessly round the town. But perhaps the

energies of the people are being kept for next Saturday evening, when there is to be a grand bal masqué at the Club International Privé. Dined with the Creswells this evening.

To-morrow I have to be on duty, when, I trust, the wind, which is blowing a half hurricane now, will have subsided somewhat. I am sorry for Gautier if he has any ships to visit to-night. He is anxious to learn English, so I am giving him lessons, which are equally good for me, inasmuch as my French is thereby improved.

Friday, February 22.—On duty. Until now, 10 p.m., very few ships; but with my excellent Casella night glasses I can just distinguish two mast-head lights seven or eight miles down the Gulf. In all probability the vessels will want pratique in an hour.

BULLETS AND SHOTS.

Two or three days ago I had useful practice with the bullet barrel of my shot-gun, also with a Martini rifle lent to me, and with my revolver. A man named Stacy accompanied me. Out in the desert we fixed up a canvas screen to serve as a target, and spent all the morning in careful trials. It was the first time I had fired spherical bullets, hence did not make good scores, yet with a little practice I believe I shall be able to get bull's-eyes at seventy or eighty yards. The bullets weigh nearly an ounce and a quarter, so my readers will easily imagine what a smashing blow one of them would give an animal. With the revolver and rifle we did good work up to two hundred yards.

My launch engineer, who is a clever mechanic, is making for me a false stock to adapt to the revolver that Tom Farries gave me. With this addition the powerful pistol will be as serviceable as a carbine.

Monday, February 25.—No ships up for me this morning, but in the night there are expected two 'Peninsular and Oriental' boats, besides a 'Blue Funnel' and a 'British India'; so I may expect a busy night.

A Bal Masqué.

The bal masqué came off on Saturday evening and was a success. All present seemed to enjoy themselves greatly. Fully half the dancers were in costume and mask. At midnight, to the minute, masks were abandoned and many amusing surprises were the result.

On Saturday morning some tennis. In the tournaments here one does not arrange that so many games make a set, but the play is for a hundred points. Each player has six services. After a round of service players change courts. For handicapping this plan is good; the best player starting at nought, and the others at ten, twenty, forty, or what not, according to their estimated strength.

Thursday's mail brought me the usual weeklies and a packet of typewriting paper, for which many thanks.

A Full Gale.

Thursday, February 28.—Duty day. Mercifully no ships, for a full gale is blowing and the sea so rough, that I do not think I would venture to take

the launch out. Only with south winds do we get such terrible waves in the Roads. In addition to the wind to-day the damp is excessive, and very nearly approaches to complete saturation of the air. All the walls are running with moisture, and the streets are as wet and muddy as after a heavy shower. It is altogether a most objectionable state of things.

Since writing the foregoing a brilliant sun has shone out, and the waves which are breaking over the walls and jetty of the Santé afford most beautiful effects.

Yesterday had a letter from sister May, and some photographs. Thanks, a thousand. Her mountings on cards showing the *Gannet* leaving under sail are most picturesque, and will give much pleasure to my good friends the officers.

On Tuesday last went to lunch on board the salvage steamer Bürger Wilhelm, the boat which succeeded in bringing up the Yarrowdale from Shab Abu Nahas. We were a party of eleven, English, French, Greek, German, Swedish. The conversation was somewhat polyglot. Afterwards the two new French doctors came to dine with me at the hotel, so, as they speak French only, I had a pretty good day's practice in languages.

Yesterday went round the hospital with Creswell. We still have that unfortunate engineer who was so badly burnt on board a ship some months ago. (See August 26.) The poor fellow seems to have no power to grow new skin in place of that lost by the scalding he experienced, and I am afraid he cannot much longer stand the serious strain on his powers.

A MAN OVERBOARD.

There has been quite an excitement respecting a watchman on board the *Aida*, who has mysteriously disappeared. It is supposed he fell overboard during his watch. If so, as he was unable to swim, he was probably drowned. The dock has been dragged without finding any trace of the body. A big shark has been seen round the ship for the last few days!

Played the third round of the billiard handicap yesterday and was again successful. If I can only beat the next man, who has to give me thirty points in two hundred and fifty, I shall at least reach a high place in the tournament.

RAMADAN.

Ramadan, the analogue of our Lent, has commenced. Only during a few hours of the twenty-four are the Mahomedans allowed to eat anything—namely, between sundown, which is announced by a cannon shot from the fort, and three in the morning, when another gun is fired. The morning gun is annoying to some of us, but here one learns tolerance, if that virtue be not already possessed.

TERRIBLE WAVES.

Friday, March 1.—Came off duty this morning at 9.30, after a continuous four hours of quarantine work amongst the ships that had been accumulating in the Roads during the previous twenty hours' gale. Yesterday afternoon, after completing my Journal

entry, and tempted by the sunshine, I went off to one vessel that signalled special desire to proceed; but I would not have ventured had I realised the dangers of the heavy seas. My guards quite failed to climb the rope ladder on the ship's side; I myself had to stand many hard knocks before I could gain her deck, and, when work was completed, had to make a somewhat hazardous return-jump into my launch at the waited moment when she rose within reasonable distance for the leap. So high were the waves that, in the interval between leaving and regaining the launch, and while expecting to be joined by my chief guard with the necessary official papers, the launch was so borne upward and onward towards the comparatively huge vessel's deck on which I stood that I was actually able to snatch the documents from an outstretched hand. The next instant crew and launch were twenty feet away. During the period of that snatch the two groups of men, watchers and watched, were within measurable distance of a common disaster; for, had the launch gone this way instead of that the one group would have crashed into the other. I will not again come out into such waves.

The sea calmed down during the night. To-day, in a boat towed by a donkey, Creswell and I went up the sweetwater canal and landed for a walk after quail. We only bagged a dozen.

Saturday, March 2.— This morning, with a boy's delight and a man's appreciation, received a parcel of delicious home confectionery.

Sunday, March 3.—On duty. Usual routine.

Monday, March 4.—Golf with Guy, the Suez repre-

sentative of Worms, Josse & Co. An exciting match, which I succeeded in converting into a dead heat on the last hole. The golf fever is beginning to take a slight hold on me, perhaps because of a little real progress.

BILLIARDS.

The Creswells came to dinner. Afterwards all went to a reception at the Tucks'. At 10.30 left there to play the fourth round of the billiard tournament and just managed to beat my opponent, young Baglehole, by 250 to his 247. It was an exciting game. He had to give me thirty points, and passed me at 150; but after that had it all my own way up to 230, when he nearly caught me again. By winning this match I get into the final; that is to say, I am certain of one prize, either the first or second.

Wednesday, March 6.—On duty; few ships. In the morning passed the waiting hours in making bullets for my pistol. In the afternoon was able to snatch some golf, playing a 'foursome,' and was only beaten by one hole.

Friday, March 8.—On coming off duty yesterday morning went for two or three hours' shooting with Mavros, but with little success, the quail being not yet plentiful.

Saturday, March 9.—Duty day. During the past forty-eight hours there have been only two vessels from the south, suggestive of a rush shortly. Filled up the morning making cartridges. If one may believe popular rumour, there is just a chance of

having an opportunity of using them on human game. For on dit the natives are projecting a rising in a few days' time; but I fancy they will never have the pluck to attempt that sort of thing in Suez, where there are so many Europeans.

In the afternoon had my revenge on Guy at golf and beat him by five holes.

A RAILWAY ACCIDENT.

Monday, March 11.—Had the misfortune to be on the station the other day when a poor Greek fell between the platform and the train and was killed before my eyes. Unintelligence, as usual, was the direct cause of the accident. I went to his assistance the instant the train had passed, but he was beyond human help and died within two minutes.

My engineer has finished my pistol shoulder-stock, and it is a great success. I can now make sure of hitting a target a foot square at 150 yards, so the little weapon is as good as a rifle.

DR. KENEALY'S NEW NOVEL.

Have just read Arabella Kenealy's new novel, 'Some Men are such Gentlemen,' that my mother was kind enough to give me lately. I am charmed with it and have thoroughly enjoyed its perusal. This is the best of the three books that our clever Bushey neighbour and lady doctor has produced.

Wednesday, March 13.—Yesterday on duty, and was kept busy during every one of the twenty-four hours of service.

The Malabar, a British troopship, had a case of measles on board, and, as she was carrying many soldiers with their wives and children, the ship's surgeon was anxious to disembark the case. After many formalities the object was accomplished this morning, and I accompanied the man to the French hospital.

GONE TO HER LONG REST.

This morning had a telegram from my father in cipher, which, on referring to my code, told me that my dear old grandmother had just gone to her long rest. I am very, very sorry. She was always extremely kind to me and ever inspired me with implicit trust in her ripe wisdom. Alas! alas! that I cannot, as I hoped, see her again if, in the spring and summer of my own life, I visit home in the autumn of this year, but in what, no doubt, must have been to her the winter of her old, old age of over fourscore.

BERCINE.

Saturday, March 16.—Have had one or two part-days after the incoming quail lately and with fair success. But it is a variety of shooting I am beginning to be nervous about on account of danger. The birds lie in 'bercine,' a luxuriantly growing vegetable used as a cattle food, and this, when three or four feet high, easily conceals natives who may be cutting it, and who, in consequence, are not unlikely to get a charge of shot by accident. 'Bercine' is the French berce,

our British cow parsnip or hogweed, *Heracleum Sphondylium*, which is used as fodder all over Europe, and is collected from the hedgerows and some meadows of Sussex for fattening pigs.

This afternoon was called in consultation to see the wife of my colleague Marcopoulos, down with serious influenza. Even in sunny Egypt we are not free from this pest. Am going on quarantine work for him again to-night, as the lady is in a somewhat critical condition.

VISIT TO PORT SAID.

Wednesday, March 20.—Left Suez at 2 a.m. on Monday, the 18th, having arranged a few days' leave, and went through the Canal, on the Dutch mail boat the Gede, to Port Said with Mavros for a day or two.

From the deck of the steamer, and on a dark background in the middle of the night, 'Port Tewfic' made a striking object, brilliantly illuminated as it was by the 'projector'—as is termed the electric searchlight—on our bows. We made a quick transit and reached Port Said without having to 'tie up' to let other steamers pass, except just once for a few minutes in Lake Timsah opposite Ismailia. There were genial people on board and we had quite a pleasant time, my banjo being in considerable demand.

The last few miles of the Canal are made through Lake Menzales, and here we saw many thousands of wildfowl. Most novel to an Englishman were the immense quantities of flamingoes, ibis, and pelicans, many of each coming within two or three hundred yards of the steamer.

At four reached Port Said, where I was met by a dragoman sent by friend Lichtenberg to show me where to go and what to do till Jack himself could be released from an engagement. The man also brought me a letter from Mrs. Tweedie, the sister of one of my friends in Suez, asking me to come to-night to a dance which was to take place at the Royles, who are the leading family of Port Said. The dragoman at once took me in his charge, after a short conflict with the Customs officials, who wanted to mulct me in duty for cigarettes I had brought from Suez. Indeed they adhered to their demands until I talked to them in choice Arabic and explained that I was a Government official and 'no ordinary tourist,' forsooth! After a time my good guide landed me at the Eastern Exchange, where Jack Lichtenberg had obtained a room for me next his own.

The Eastern Exchange of Port Said is an enormous block of buildings used as hotel, club, stores, and residential flats. Jack soon arrived and, having dressed and dined, we went to the Royles and had delightful entertainment.

The Tweedies, too, were most kind, being good enough to ask me to come and stay with them at their place at 'Navy House'—an invitation I gladly accepted yesterday (Tuesday), and which has brought me a most enjoyable time. Mavros was up to lunch to-day (Wednesday), and we are to return to-morrow by train.

This afternoon I played in a cricket match for Port Said against a combined team of sailors from the Barham and the Dryad, the two Government vessels stationed here. I was put in first, but only succeeded in scoring eleven runs. As I have said before, it is very difficult playing on matting and sand compared to playing on the turf at home.

Saturday, March 23.—Came back from Port Said by train on Thursday. Down to Ismailia the railway is the property of the Canal Company, and is a narrow-gauge line. The carriages are beautifully fitted and most comfortable.

FLAMINGOES, IBIS, PELICANS.

Passing along the shores of Lake Menzales we again saw many flocks of flamingoes, ibis, and pelicans. It is interesting to watch the flamingoes form themselves into masses like a battalion of soldiers and go stalking along, for all the world as if they were being drilled. The ibis comes and goes with the rise and fall of the Nile.

Ismailia was reached about midday, and here we had to wait nearly four hours. The time was occupied in having a good lunch and then driving round. The place is planted with groves of palms, acacias, and a graceful variety of fir. At Suez, where we arrived at 6.30, I found letters from home and the much desired and promptly forwarded tennis racquet from the pater. Thanks many.

NIGHTS IN THE ROADS.

Tuesday, March 26.—Yesterday on duty, and from midnight until 6 a.m. to-day was out in the Roads. The weather for the last two or three days has been

bad; strong winds and sandstorms. Slept for two hours after breakfast this morning and again in the afternoon, so I have made up for my 'white night.'

Friday, March 29.—On duty yesterday and once more was out in the Roads all night, not getting any rest till six this morning. Moreover, had the ill luck to slip on the companion ladder of a launch and give myself an unpleasant shaking, fortunately without real injury.

On Thursday letters from mother and Gertie; many thanks.

We had a pistol match here the day before yesterday. Six different patterns of revolvers were in use, some larger than mine, some smaller. My 'Colt' came off the winner.

Sunday, March 31.—On duty. Have just come back at 11 p.m. from making the visite médicale to a Dutch mail boat, the first steamer to-day. But more are coming, for this boat reports having passed four or five steamers; indeed I have just made out the lights of one now coming up the Gulf.

Tuesday, April 2.—Came off duty yesterday morning at 8.30 a.m., having been in the Roads from 10.30 the previous evening visiting the ships in the order of their arrival. On one there had been a somewhat exciting time. The chief engineer, under a slight attack of delirium tremens, had 'run amuck' on board. Before he could be overpowered he had laid open the captain's cheek with a razor and severely wounded another man.

Had a letter from Gertic, and from my old friend Cheatle, of King's, by yesterday's mail; many thanks.

DAYS IN THE MARSHES.

To-day have had good sport. Robson and I, after breakfast at 6 a.m., started on donkeys to shoot the gardens and marshes up to 'Canal Station 146.' Commencing with a small marsh close to Suez, we found snipe, but, their wildness and the proximity of natives frequently preventing our firing, we only bagged two. Further on got a snipe, a plover, and two quail. When first I commenced shooting in these marshes and swamps, it was somewhat alarming to feel oneself sinking into creamy mud, not knowing whether or not one would find bottom; but, after penetrating variable depths, a footing is always reached. Still, the mess one gets into is indescribable. Yesterday in one place, fortunately not very deep, I lost my footing and got 'floated,' as plasterers say, from head to foot in thin liquid mud. The swamps left behind, we rode on to some cultivated ground and had fair sport with the quail among beans, bercine, and tomatoes. In the beans and tomatoes it was fairly easy to flush your birds, but in the thick bercine you may, if you have no dog, almost walk over a quail without putting it up; and, even after killing, it is extremely difficult to find your game in this thickly growing vegetable. By this time the sun was getting very hot, and we took a little rest under the welcome shade of a tree of 'mish-mish'—as are termed apricots in Arabic. The fruits are coming on well, and should be ripe in about a month's time. After working two or three more gardens we made our way to '146,' where we

were welcomed and hospitably entertained by the station-master, who is a Greek and related to my good friend Mavros. After a short siesta we shot the gardens back to Suez, having had a delightful day.

People tell me that the present warmth is quite abnormal, namely, a shade temperature of over 90° F.—too high to be comfortable.

UNE AUTRE NUIT BLANCHE.

Thursday, April 4.—Yesterday on duty, and though there were only two ships during the day the average was overrun in the night; for I passed what the French term a nuit blanche, that is to say, was up the whole time from 11 p.m. till 6 a.m. Fortunately I had a sleep of two hours and a half during the afternoon.

More Mirage.

There were extraordinary mirage effects yesterday, the distortions produced by the heat-rarified air being most curious. For example, some native boats two or three miles off seemed to be floating many feet above the sea level and had their masts and sails twisted into a serpentine form, the topmasts curling over and coinciding.

AN OYSTER BREAKFAST.

At 4 a.m. had an early breakfast of oysters with Mavros. A Dutch mail boat brought in a big basket of them from Port Said, and in an interval between the arrival of two ships we put away several dozens,

for they were particularly good. When up all night one gets rather hungry at four or five in the morning.

STAFF BUILDINGS.

Monday, April 8.—A Commission from Alexandria to report on repairs and improvements in connection with the next pilgrim encampment arrived last Friday, and went on to Tor by the Aida on the following day. The members of it were M. Ardouin, the Inspector General, the two French delegates MM. Le Grand and Colomies, and the Russian Consul de Villers. I went down to Terre-Plein after dinner on Friday and had a long talk with them. At present, M. Ardouin told me, no definite arrangements as to the Staff for Tor are made, but I presume that unless there is a cholera epidemic this year it is unlikely that I shall be required. I was also informed that at last they are going to start the buildings for the Staff here. In Egypt it is so often 'Bouckra—nous verrons,' that we doctors are quite cheered.

** ASHLANDS AND ASHLANDS.

On Saturday was quarantining, and for the first time for many days of service had an undisturbed rest during the night, no ship arriving until 6 a.m. Oddly enough, the vessel had our home-name, 'Ashlands,' the reading of which advanced my growing tendency to count the days to my time of leave.

During this hot weather, which still continues, fleas and flies are most troublesome. Of the latter

pests I came across a most beautiful specimen the other day. Its head and thorax were of a brilliant sky blue, while the abdomen was a vivid orange; it had very long legs, and its wings, while it was walking, instead of being carried in a sober and orderly manner, like those of its house cousin, were pointing well up in the air over its back.

FATAL INFLUENZA.

Egypt has not escaped the influenza plague, in spite of its generally delightful climate. There are many cases with us, and not a few have been fatal; we lost one of our native guards a few hours ago.

SMOKELESS CARTRIDGES.

Early this morning went for a short stroll with Stacy up to the marshes. The birds were very wild; I only succeeded in shooting a couple of quail and a snipe, while my companion came back empty-handed. By some new official arrangement we can now get good English loaded cartridges from Cairo. I have just had a hundred 'smokeless,' and they have proved a success. They are rather expensive, but are much nicer to use, the absence of the smoke which one gets with black powder, and which is so troublesome on a still day, well repaying the extra cost. They seem also to hit much harder; indeed one has to 'hold off' a bit or run the risk of shooting one's bird all to pieces—as occurred with a quail I shot at yesterday rather too soon, fearing he was going into some high corn.

TOR COMMISSIONERS.

Wednesday, April 10.—The members of the Conseil's commission came back to-day from Tor, by the Aida. They did me the honour of accepting lunch and of accompanying me round Suez. They then spent an hour or two over my photographs of the Sinaitic hills and monastery and of Tor and its surroundings, one of the French delegates, M. Colomies, borrowing some of my pictures for reproduction.

UNUSUAL SUEZ WEATHER.

Friday, April 12.—The unusually warm and oppressive weather of the past few days culminated last night in burst after burst of thunder and glorious lightning effects over the adjacent mountains, succeeded by more rain than old inhabitants of Suez have ever seen. A torrent from some hills washed away many yards of the Cairo railway, causing a train to run off the line, but fortunately without loss of life or any excessive damage to engine or carriages.

GENERAL INFLUENZA.

Sunday, April 14.—The ravages of that almost universal disease, the influenza, are really quite serious here. Have just come from a case in which I was called in as a consultant, and find that my local professional brethren are quite overworked. More than half of our staff, guards and others, have been affected, but at present only one fatally. I fortify myself with a dose of quinine daily. A large dose taken shortly

before a walk into the gardens or marshes interferes, oddly enough, with one's aim in shooting—an effect quite new to me.

RAIN BREACHES RAILWAYS.

Monday, April 15.—Weather still bad; warm and damp. Again a storm and again the railway breached, this time between Tel-el-Kebir and Ismailia. As a consequence, the service of trains has been dislocated and postal despatches and arrivals delayed.

EASTER AT SUEZ.

Yesterday being Easter Sunday, De Laugier had a paschal party, to which I was invited. We had several dishes characteristic of the period, one being a lamb roasted whole. This year the Greek Christians' Easter coincides with the Catholics'; hence we have had double ceremonies, including much promenading of the streets and the firing of many guns, pistols and crackers.

Poor Blatteis has at last passed to his long home. Tuesday, April 16.—By the mails of yesterday and this evening have received letters from mother, Gertie, Auntie Nell, Tom Farries, Miéville, and Zachariadis; thanks many. From the two latter I gather that it is probable I shall be sent to Tor again this year.

A PATRIOTIC CEREMONY.

Saturday, April 20.—On Thursday my duties afforded an opportunity of seeing a patriotic ceremony. A Messageries Maritimes steamer that came

through the Canal had on board General Duchesne, the chief of the French expedition to Madagascar, and his staff. The élite of the French colony at Suez came off to bid him and his soldiers 'bon voyage.' The party was headed by the French Consul and his lady. Madame presented the General with a magnificent bouquet, some little speeches were then made and champagne served, and so the ceremony ended.

'AT HOME' AT SUEZ.

Last night I had a little 'at home,' which went off very well. With song and dance on the big balcony, for it was a lovely warm night, a few hours were pleasantly passed by a party of over twenty. Mrs. Tweedie from Port Said (see March 20), who is making a short visit to the Tucks, enabled me to include a non-resident lady, quite an event in Suez. Hammond is an excellent pianist, and played for us all the evening.

Tuesday, April 23.—Have been up most of the night, having visited four steamers. One of them was a P. & O. mail boat, the doctor of which is an old friend of mine. Such little meetings seem to bring one close to home.

A FOREIGN PICNIC.

The other day I was invited to a picnic arranged by some of the foreign people here, and found only one other Englishman in a party of thirty. We went up the Canal in two launches as far as the second station, where we had lunch, and then amused ourselves with dancing, singing, and a little shooting. Suez was reached again at 6 p.m. after a very pleasant expedition.

CHOLERA AT MECCA.

By telegraph this morning cholera is reported to have broken out at Jeddah. Of course it will extend from that port to Mecca, and then my services will probably be required at Tor, the date of my homeleave thus becoming uncertain.¹

PENULTIMATE.

Enough has now been written by me respecting the chief work, the incidents, and the circumstances of quarantine duty at Suez; enough has been said of hospital and other practice, of my labour at languages and of endeavours towards research; enough, too, concerning the social and sporting pleasures at my command. Six months ago (on October 19) I asked my friends to take for granted subsequent details of duties and studies, I shall now only weary them by reiterated descriptions of ship-visits, shootings, &c. I am completing the last month of my first year in Egypt, and, as I see no reason why a second year should be very different to the first, I think that my Journal, as a Journal, should now end. That is to say, in writing to private friends a private journal the raison d'être of which is novel experience, only a tra-

¹ Quarantine.—Our Cairo Correspondent telegraphed last night:—'The Turkish authorities having reported an outbreak of cholera at Mecca, fifteen days' quarantine at El Tor is imposed upon passengers and ships from the Hedjaz littoral.'—*Times*, April 26, 1895. J. A. and M. A.

veller from country to country, or who frequently is changing his surroundings, could expect to interest his readers for more than, say, one year. In my case, had not the two months at Tor intervened, and all the rich experience of that period and of the circumstances that led up to and that succeeded that period, I question if I should have ventured to offer to my three circles of relatives anything so formal as a typewritten journal at all, or for more than a few months. At all events, I no longer occupy a novel pedestal, and, therefore, may also step down to the ordinary levels of correspondence. My professional life is at present congenial yet disciplinary to myself, and, I hope, useful to others; one's passing life of recreation delightful; health perfect; indoors and outdoors I am happy: but I am sure that friends will not desire more than one year's almost daily written evidence of that very satisfactory state of things. An occasional sheet will meet all requirements.

I thank all readers for their patience and for their many and too kind letters. The latter, at least, induce me to say that, should occasion ever arise, I will again ask for attention to my jottings.

FINIS.

The holiday already assumed is now a certainty. In the autumn I shall be entitled to two months' leave on full pay, and shall apply for it if duties permit. Do friends say 'What will he do with it?' I reply, 'There's no place like home.'

DONALD HARVEY ATTFIELD.

POSTSCRIPT.

Wednesday, May 1.—Several deaths from cholera have occurred at Mecca. Jeddah and Yambo are declared infected. We have ships from those ports in quarantine at Suez. A small staff, headed by Zachariadis, started from here for Tor this morning.

Saturday, May 4.—The signs of any serious visitation of cholera now wax, now wane. I find I may have to proceed to Tor or to remain at Suez. Doubtless I shall find myself where I shall be of most use. The Conseil will know best. Provisional arrangements will be completed within a fortnight, when I will telegraph; but always address letters to me at Suez, simply. They will be forwarded if I should be away.

Tuesday, May 7.—It is a year to-day since I left England. The date of my return on leave depends on the rate of the cholera march along the Red Sea route shown in the prefatory map to this Journal. No one can forecast the progress of so erratic a visitant. Whatever the event, I am proud to be aiding in the endeavour to procure its possible if, alas! distant annihilation; and, meanwhile, to be assisting in doing what man can do to hold either the last or the first line of Suez Gulf defence against the entrance of this health-enemy into Europe.

TELEGRAM.

Thursday, May 16.—At present I remain at Suez. D. H. A. Suez, June 23, 1895.—Have just had the honour of being appointed Chief Director of the Extra Egyptian Medical Pilgrim-Encampment at Ras Mallap, a patch of desert 50 miles from Suez on the east shore of the Gulf. My endeavours to well perform the duties of Sub-Director of the Camp at El Tor during the corresponding few pilgrimage weeks last year are thus rewarded to my entire satisfaction. 150 men will help me manage batches of 600 pilgrims at a time—I the only Englishman.

Ras Mallap, July 4.—One week sufficed for organising, shipping and pitching the camp; but it involved 18 to 20 hours of hard work daily. Have just re-embarked my first shipload of 600 pilgrims. No deaths; only 4 sick. Another shipload lands this afternoon. No cholera in the Red Sea. If this high rate of health continues the camp will be struck almost immediately.

Suez, July 9.—Camp struck. Back in Suez. A letter from the Conseil accords me an extra month's leave (total 3 months) from early in August. Health excellent.

D. HARVEY ATTFIELD.



CURIOSITIES SENT HOME.

Suez Gulf shells and corals; bought or fished.

A branching black-coral cigarette holder.

Curious coins; purchases and gifts from Mecca and Medina pilgrims at Tor.

Two Bosnian cigarette holders; wood cores, carved oxidised silver sheaths, amber mouthpieces: presents from pilgrim chiefs.

Two ham-stringing knives from Suakin; one given to me by Brewitt of the *Messir*, the other by Ayscough of the *Gannet*.

A St. Katharine's ring given to me at the convent on Mount Sinai. A similar one is presented to every pilgrim to St. Katharine's shrine.

The skin of the hyæna shot on September 24.

A small whip or 'kourbash' of rhinoceros hide, one-third the size of that used at Tor [see page 123] for checking disorderly conduct.

An Egyptian-ware teapot.

A turquoise ring, such as is worn by the natives.

A packet of henna.

'Henna,' the 'camphire' cosmetic of the Song of Solomon, i. 14, "iv. 13, is the finely-powdered leaf of Lawsonia alba, a small shrub. It is used to this day throughout the East from the Mediterranean to India, commonly by the women and often by the men, for dyeing the nails, palms, soles and hair, of a dull orange-red colour; while Egyptian mummies furnish abundant evidence of its similar employment. 'Vanitas vanitatis, omnia vanitas.'

A specimen of 'meshrebiyeh' carving, designed as 'a Koran stand.' [See page 194.]

Nearly two hundred photographs illustrating the incidents, places, men, and manners described in the Journal.

A slab of granite, weighing about twenty-five pounds, from the summit of Mount Sinai. [We have had this polished on one side and engraved as below. For explanations see pages 82, 98, and 118.—J. A. and M. A.]

A PIECE OF THE GRANITE OF MOUNT SINAI

BROUGHT FROM THE SUMMIT BY
DR. D. HARVEY ATTFIELD, M.A.,
ON JULY 7, 1894.

FELSPAR. MICA. QUARTZ. COVENANT. CROSS. CRESCENT.

APPENDIX I.

AN INVESTIGATION OF THE NATURAL SOLIDI-FIED SODIUM SULPHATE LAKES OF WYOMING, U.S.A., IN 1891.

By Dr. D. HARVEY ATTFIELD, M.A.

WATFORD TO WYOMING.

'I am going, O my people,
On a long and distant journey . . .
To the portals of the sunset.'

TRAIN. SHIP. TRAIN.

'Whispered to it "Westward! Westward!"

And with speed it darted forward.'

REPORT OF WORK.

'From the vale of Tawasentha, From the valley of Wyoming, From the groves of Tuscaloosa, From the far-off Rocky Mountains.'

WYOMING TO WATFORD.

'Pleasant was the journey homewards, Over meadow, over mountain, Over river, hill and hollow— Over wide and rushing rivers.'

Longfellow.

[The appended paper was read and discussed at a meeting of the Society of Chemical Industry, London, on January 7, 1895. See the Journal of the Society for January 31, 1895.—J. A. and M. A.]

On the admirable twelve-mile-to-the-inch map, published by the American Government in 1888, and delineating in

great detail the State, or, then, the 'Territory' of Wyoming, will be found marked, at about the middle and southern edge of the 'Wyoming oil belt,' certain dry lakes. The lake coloured yellow and marked 'soda lake' in red letters, sixty miles in a straight line across the prairie (seventy or more in tracking) west-south-west from the town of Casper, the terminus of the Chevenne Northern Railway, is the lake to which special attention is drawn in this paper, although the writer visited and will have something to say about several others of these so-called 'soda lakes' of Wyoming. Early in February 1891 he was sent to the district on behalf of a London syndicate which proposed to purchase this particular 'soda-lake' property; taking with him an analytical outfit and a small plant for manufacturing fifty-kilo samples, as well as photographic and surveying apparatus, for the purpose of making a thorough investigation of the lake as to chemical composition; quantity of material; proximity of fuel, white sand, and, in this country of small rainfall, that especially important substance, water; as well as to consider the suitability of the site for a community with regard to hygiene, food supplies, and transit by road or rail.

The lake is situated, to employ the official language of the United States Government, in portions of Sections 19 and 20 of Township 29 N, Range 88 W, in Natrona County, formerly known as Carbon County, Wyoming, U.S.A. In fact, the figures 29 on the map, the number of the township, exactly marks the site of this 'Durbin' lake, for it is not more than four or five miles from the nearest cattle-ranche kept by Farmer 'Durbin.' The lake occupies the lowest part of a shallow depression in a long valley which is bounded on the north by the Sweetwater or Granite Mountains, and on the west and south by the Green, Iron, and Ferris Mountains, the valley running out eastwards. The Sweetwater River, a tributary of the Platte, drains the valley and flows within a mile of the lake itself.

All the mountains just mentioned are outlying spurs of that enormous North American range, colloquially termed 'the Rockies.'

The first view one has of this soda lake, or 'soda placer' as it is called in the States, gives the impression of a snow-covered area, the frozen appearance being due, however, not to snow or ice, but to white and pulverulent effloresced sodium sulphate, for the lake has long since crystallised into a solid mass. The form of the lake is that of an oval lying west-north-west and east-south-east, with a long diameter of some 1,200 yards, and having approximately, therefore, an area of 110 acres, not 200 acres as locally believed.

A boom or jetty, formed of cuttings of 'sage brush,' the well-known rough hardy shrub growing very plentifully over the prairies of North America, has been built out nearly fifty yards on to the lake by the owner of the property to form a rough footway over some places which are said to be very soft in warm weather, though at the time of this visit they were frozen firmly. At these spots, which are termed 'springs,' but which are probably mere collections of rain or surface water, the writer was assured that a twenty-foot pole would not touch solid ground, a statement he was unable to verify as, during the investigation, they were hard with ice, the thermometer frequently being below the zero of Fahrenheit.

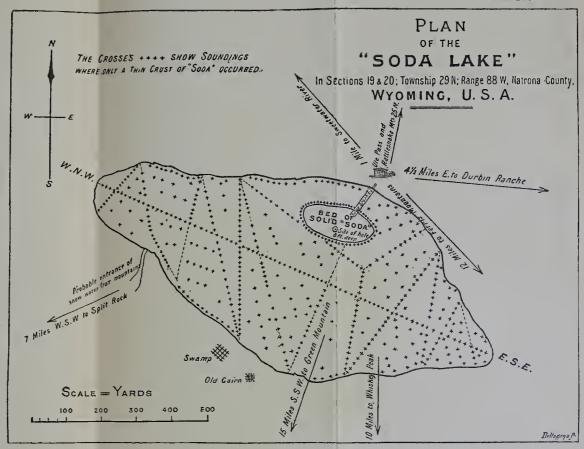
Passing now from the subject of the general surface area of this solid 'soda' deposit, the question of the exact chemical nature of the enormous saline mass had to be considered. Samples were collected from different parts of the surface of the 'lake' and from different depths in a large hole or pit some twelve feet square and eight feet deep, excavated for the purpose beyond the end of the jetty. Some time was then spent over the analyses of the numerous samples.

Here may be stated two or three of the many difficulties

by which a chemical operator is liable to be surrounded under such circumstances. The cold was so intense that several fluid reagents froze whenever the stove in the shed or 'laboratory' got low in fuel, as it necessarily often did at night. Several pieces of thick glass apparatus, such as graduated measures, were lost by incautiously pouring in water which, though itself at an ordinary English temperature, was hot compared with the temperature of the glass itself. The cowboy cook, too, required a good deal of persuasion, and not a little of my precious store of methylated spirit (which he deemed far superior to his whisky), to allow the use of his stove for evaporations and other processes requiring heat. Then the 'laboratory' was not so commodious as one could have wished, for it was simply an unpleasantly well-ventilated outbuilding of the farm—a mere log hut, used as a smithy; but it had the necessary and indispensable furnace. There was set up the refining plant, consisting of large enamelled iron evaporating and crystallising pans, the fuel being wood. The still and condensing worm included in the outfit for procuring distilled water were objects of great interest to the cowboys; and many offers were made for them, with inquiries as to how spirit might be obtained by their means.

The table on the opposite page shows the composition of some of the samples of this natural deposit.

The 'top crust' of the deposit is, obviously, effloresced sodium sulphate, each pound containing about one ounce of sodium carbonate. Occasionally actual crystals of potassium sulphate, also, could be separated during crystallisations, though there was none in the three samples quantitatively analysed. By 'new deposit' is meant the crystals of sodium sulphate which form when a hole made in the mass fills up with fluid oozings from its bottom or sides, the fluid subsequently solidifying. The sample analysed was, in short, almost commercially pure



across the surface from side to side. These were then intersected by similar lines, one extending from end to end This accomplished, a systematic series of of the lake. probings and diggings over the whole surface of the lake was planned. During this exhaustive examination one soon found that there were places where the thin top crust being the same, the spade or boring rod found underneath, not more or less sand, as was usual, but a stiff tenacious clay-like substance which gave no evidence whatever of having any of the solid sodium sulphate under it. In some places this clay—for analysis afterwards showed it to be clay—was of such a stiff consistency through frost as to render almost impossible the driving of an iron rod more than two or three feet down. But in by far the larger and more outlying and later examined portion of the 'placer' a ten-foot rod could be driven into the clay or mud without any hard bottom, crystalline or otherwise, being reached.

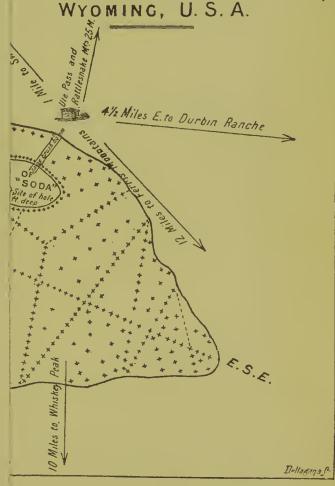
These results indicated a somewhat serious state of affairs in regard to mass, pointing indeed to much of the area of the 'placer' being a mere top crust with no solid underlying stratum of sulphate—hitherto asserted to be many feet thick, except, perhaps, at quite the edges of the lake.'

Finally, these many probings and some small excavations enabled one to map out, as it were, on the surface of the lake the edge of the only deep, and, therefore, only really valuable portion of the deposit. This area, most carefully surveyed, was found to embrace not the locally asserted '200 acres of deep soda,' nor even the truer superficial area of little over 100 acres, but at the most only six acres! It was not until this limited area had been thus located that any surface indications were discovered which might lead one to guess its existence, or to guess that there were in any portion of the lake below its nearly uniform top crust any such important variations in the

PLAN OF THE

"SODA LAKE"

ctions 19 & 20; Township 29 N; Range 88 W, Natrona County,





character or amount of the solid sodium sulphate as was now found. Guided, however, by the foregoing operations, one could see, by slight upheavings in the crust here and there, due to what had been apparently slight risings of subsequently frozen fluid, that a faint top outline of the only valuable deep deposit could be just made out, by the eye, on the surface of the lake.

There could be but one outcome of this discovery. The investigator was obviously compelled to conclude that his quest must, from the commercial point of view, be abandoned. Even assuming the whole of the six acres to be fifteen feet thick, it could soon be consumed by the town of Pittsburg alone, which is only one of the great glassmaking and sodium-sulphate-consuming cities of the United States. For the requirements of Pittsburg in this direction had already been ascertained on the way out to Wyoming, and the writer had been presented with samples of excellent glass made there by help of sodium sulphate.

One naturally wonders how this large mass of sodium sulphate was formed. The exact modus operandi of the original formation, including the genesis of the small proportion of carbonate, is for the geological chemists to discuss. (Vide Sichenberger, 'Chemiker Zeitung,' Nov. 2 and 9, 1892; also Hilgard, 'Berichte der Deutschen Chemischen Gesellschaft,' Jan. 9, 1893; or Brunner's résumé of these papers in the 'Journal of the Society of Chemical Industry,' Feb. 28, 1893, page 116.) The presence of the salt in bulk, however, as in this particular lake, and in numerous other places in Wyoming, is probably due to the large quantities of sulphate with which the soil is apparently impregnated, becoming dissolved out by the melted winter snows, and becoming collected in clay-bound or other impervious depressions, where summer evaporation causes concentration, and where, therefore, crystallisation eventually takes place. All over the district

one sees slight, and occasionally very obvious efflorescences of sodium sulphate, while analysis readily reveals it in the soil of such places. Dana's 'Mineralogy' has a sentence to the effect that an efflorescence of sulphate and carbonate of sodium occurs near the Sweetwater River, Rocky Mountains, and subsequent accounts support the statement. The few persons residing in the neighbourhood assert that the sulphate comes up from springs, fed from a distance, and adduce as evidence that if a pit be dug in the solid sulphate the hole soon fills up with fluid which in a short time becomes solid with what they call the 'new deposit.' But that result is probably due to the percolations of rain passing through fissures of the bed, and becoming saturated with the sulphate which afterwards crystallises out. All the local gossip on these and the other 'soda' lakes of this country make especial point of this supposed continuous increase, but no real evidence is yet forthcoming of any general increase of this kind. Such reports mislead the average 'prospector.' It is true, no doubt, that holes dug in the soda fill up with fluid, and that the latter becomes solid by crystallisation, but this is due in all probability to the cause above suggested, and not to new 'soda' brought from below or laterally to the lake in any large quantities. If the latter state of things obtained, the lakes would always be increasing in size, which, from all that can be gathered, is not the case. Moreover, in his many sporting walks and hunts for tablegame in the neighbourhood of the lake, the writer saw no evidence that water-streams, large or small, ran into the lake, nor any evidence of what might fairly have been termed springs. There was at one end what apparently was the dry bed of a stream, but every one of the few persons resident in the district agreed that this was a mere channel from the adjacent hills for the melted snows, and not for water gathered from the drainage of subsoil. What one does notice here and elsewhere in Wyoming is

frequently occurring patches of white efflorescence varying from a square foot up to an acre. The only tenable view respecting them would seem to be the one stated respecting the Durbin lake, namely that the falling rain dissolves the sodium sulphate occurring in the soil, and the solution percolates away to the lowest available level, there to evaporate its waters during the drought of the long summers, its salt reappearing as a layer of lesser or greater thickness.

On the return journey across the seventy miles of poorly tracked prairie to Casper, more careful notice was taken of several of the depressions just mentioned as varying in area from a square foot to an acre, all more or less lined with efflorescent sodium sulphate. Under the efflorescence was sandy loam, but in none of these deposits could be discovered any subjacent vitreous mass of sulphate. The writer passed over or near the 'Rattlesnake,' 'Drago,' and 'Seminoe' petroleum areas, and rested on one night in an oil-searcher's hut, but gathered nothing further respecting saline lakes, liquid or solid.

At Casper he heard of what purported to be another large deposit, or soda-placer, some fifteen miles north-west from the town, and has since found it marked 'Soda Lakes' in red letters, and coloured yellow on the map already mentioned. On driving over, quite a group of lakes of varying area presented themselves, but before they could be examined in detail a blizzard came on, and the visitors had a narrow escape from spending the night on an utterly desolate prairie, without food, fuel, or shelter, and the thermometer standing round about zero. The few samples that were collected proved to be almost identical in composition with the Durbin 'soda,' except that they contained rather less sand.

With regard to the total area of this Casper group of 'lakes,' time and weather prevented an accurate survey, but the impression given was that the deposits taken as a

whole were considerably larger than the Durbin deposit. After two or three days of delay by snow, Cheyenne, a typical western frontier town, presenting no demand for sodium sulphate, was once more gained. There the Union Pacific Main Railway was rejoined and Denver soon again reached.

At Denver, hearing that there were at Laramie distant only twelve hours by railway, more solidified 'soda lakes' which had already been wrought for sulphate, and which from all accounts seemed worthy of a visit, the writer forthwith inspected them. These deposits or lakes, three in number, and within a stone's throw of one another, have a combined area of some 130 acres. They lie fifteen miles south-west of Laramie City in Township 14 north and Range 75 west of the sixth principal meridian. Time only allowed of an examination of their general topographical and physical aspects. Fortunately, however, the chemistry and technology of these Laramie lakes has been dealt with by Pemberton and Tucker, who visited Laramie in 1888, and who read a short paper on the deposits before the Franklin Institute, published in the 'Chemical News' of our own country on July 14, 1893. While these investigators were there the lakes were entirely covered with water. This water was due, presumably, partially to leakage from an irrigation canal, which runs at no great distance, and partially to several springs. On the occasion of our own visit in 1891 two of the lakes were entirely covered with water. which was frozen to the depth of about two inches on 'Big Lake' and about five inches on 'Track Lake.' The third, known as 'Red Lake,' was only partially covered with water, which was not frozen.

It is some few years since these lakes were worked. A short branch-line from the Union Pacific Trunk Railway runs down to them and actually over two of them, for in summer the deposit is evidently quite dry and would sustain a railway. One of the springs just referred to was

said to be 'quite pure water having no saline or brackish taste, and, while the lakes were being worked, was used as an ordinary supply for a house that had accommodation for twenty people built between Red Lake and Track Lake, as well as to feed the boiler of a small engine placed in the building.' During our visit verification of these statements was impracticable on account of the severe frost, but there was at least, in situ, an iron pipe running from the site of the spring to the neighbourhood of the frame-house mentioned. That this spring should be free from sulphate strikes one as particularly interesting, situated as it is within a few feet of the 'soda' deposit. On the occasion of our visit Red Lake was covered with aqueous fluid to the average depth of six inches. Under this was a crop of loose clear crystals of sodium sulphate averaging eight inches in thickness. In places these crystals had a reddish tinge from which the lake no doubt derives its name, and which is probably due to some low form of life. Sichenberger, op. cit., says that in the springs supplying certain alkali lakes of Egypt on the left bank of the Nile, and about thirty-six miles from it, and sixty miles from the Mediterranean,' there were algae which, under the influence of sulphuretted hydrogen evolved from the water, became of a red colour. To something of this kind may be due the colour of Laramie 'Red' Lake, the more so that in it are numerous veins of black mud which on being stirred give off bubbles of gas smelling strongly of sulphuretted hydrogen.

Close to the railway switching track, which runs over this lake, the crop of clear crystals had been raked up just before the cessation of working, into what might be termed windrows, ready to be shovelled into the freight cars for shipment to the Laramie Alkali Works. They showed 99.5 per cent. of pure sodium sulphate. Below this crop of colourless crystals came, as in the Durbin deposit, the vitreous mass of solid sulphate. This is

asserted to be in places upwards of thirty feet in thickness, the Hon. Colonel Downey, of Laramie, assuring me that some years ago, while he was interested personally in this property, 'by means of a special drilling apparatus the deposit was at last pierced at a depth of forty feet. In 1876 a block weighing some 6,000 pounds was quarried out and sent *en masse* to the Philadelphia Exhibition of that year.'

There are many vertical veins or sheets of mud, as already mentioned, on this lake. They are especially prevalent at the western end. They vary in width from one to two feet, and an iron rod plunged vertically found no bottom at eight feet, though one could scratch as it were the vitreous mass on either side of the vein all the way down. This mud was black in colour and contained a large number of separate crystals of sulphate. It smelt strongly of sulphuretted hydrogen. It was stated that the veins were much warmer than the surrounding sulphate, but a thermometer showed no appreciable difference during our investigations. No theory has hitherto been offered to account for the occurrence of the veins. Perhaps the whole vitreous mass has cracked from time to time and clay-mud has made its way into the resulting crevasses and given the veined appearance to the surface.

On the following day, the Union Pacific Railway Company having placed at disposal a special train, the lakes were more quickly reached. Track Lake was covered with hard firm ice about four inches in thickness. Below this, which one had to cut through with an axe for the insertion of one's arm and shoulder, was found some ten inches of fluid, and at the bottom of this again a copious deposit of clear crystals of sodium sulphate, under which, judging by one's sense of touch (by this time fairly trained), the solid vitreous sulphate was found as in the other deposits.

The difficulty and tediousness of frequently cutting through five or six inches of hard ice precluded further

examination of Track Lake. 'Big' Lake, which is appropriately so called, being some seventy acres in area and thus having twice the superficies of either of the other Laramie lakes, was under more favourable conditions for investigation as the ice covering it was just sufficiently strong to carry the weight of a man and yet of such a consistency as to allow an iron rod easily to pierce it. With lower extremities enveloped in long indiarubber boots in order to minimise the unpleasantness of dropping through the ice, one could proceed to thoroughly examine the lake. First a few holes were cut in the ice, and then by means of a scoop the layer of loose crystals, as characteristic apparently of this as of the other lakes, was found to be as much as twelve to fifteen inches in thickness, and the crystals themselves to be particularly clean and bright. A walk all over the lake, driving the rod through the ice every few yards, always gave the same result—namely, first some two inches of rotten ice, then about a foot of fluid with about the same amount of loose crystals, under which came the solid vitreous mass. In only two of these very numerous probings could be found any variation in these layers. In these two instances no hard mass, and no bottom, could be felt, and the rod came up clayey and smelling of sulphuretted hydrogen as in the case of the mud veins of Red Lake. The taking of some photographs ended the investigation of these Laramie lakes.

The morning of the next day was devoted to an inspection of the now disused chemical works constructed for working the Laramie sodium sulphate. They are situated about a mile from the town of Laramie on the banks of the River Laramie. The Union Pacific main line runs alongside the works, and indeed side tracks from it actually run through the yards.

Here was a complete, though not of course the most modern, plant for the manufacture of sodium carbonate and caustic soda. The works had not been commercially

successful owing solely, as one was carefully assured, to mismanagement. Within easy distance of Laramie City are large coal, sand, and limestone supplies, and the Union Pacific Railroad Company are prepared to arrange very reasonable rates for freightage east, so possibly the Laramie lakes have a satisfactory future in store.

The writer need scarcely add that the Durbin lake, to which he alluded and to which he will now revert, has none of the facilities of transit such as have been mentioned as being possessed by the Laramie lakes. When he was at Durbin, in 1891, the nearest railway was at Casper, which, as already stated, is the terminus of the Chevenne Northern Railway. To get from there to Durbin, which is simply a small ranche, one has to take a three or four days' journey across the almost trackless prairie, with two mountain ranges to cross, at no great elevation, it is true, but yet sufficiently troublesome to make haulage a considerable item. Any investigator must be prepared to do his share of digging a way for his team through snow-drifts and very literally to put his shoulder to the wheel. During the journeys across this prairie one saw some stakes indicating that surveying had been done with the view of running two railways (the 'Wyoming Central' and the 'Sioux City and Ogden') through the district. One of the projected lines was evidently intended to pass within a few hundred yards of the soda-placer. Unquestionably, soda or no soda, the Sweetwater valley would afford an excellent railway route. But this surveying or 'grading,' as it is termed, was done some years ago, and at present no further progress has been made. The neighbourhood is very sparsely populated and is extremely wild.

The nearest house to Durbin Ranche was some five miles off in an easterly direction, and not another for the next five-and-twenty miles in that direction. As an illustration of the wildness of the district, any investigator will see large numbers of antelope on the prairie and may see

a few black-tail deer and elk in the mountains. Bears, wolves, and rattlesnakes are common. At night one constantly hears the coyotes or prairie wolves howling round the ranche. Many of these afforded the writer useful skins, but scarcely any chemical treasures were forthcoming. Some moss agates were obtained—indeed a region of 'agate beds' is marked on the Government map some fifteen miles or so north-west of the Durbin soda lake, but the district appears so far, and in the absence of railroad advantages, to be of no great mineralogical importance, though vague rumours are abundant respecting great veins of coal, as well as of ores of gold, silver, copper, and iron.

As hints to subsequent scientific or chemico-industrial prospectors, the writer may just state that Durbin Ranche is the postal centre for the district, and the few rancheowners round ride in once a week for mails. The land is apparently not very fertile, but its sterility is chiefly owing to the scarcity of water. Along the part of the valley contiguous to the bed of its river, the Sweetwater, and where, consequently, irrigation is not very difficult, there is good pasturage, and a large number of horses are bred by some of the ranche-owners. The general occupation, however, is cattle-rearing.

The climatic conditions of this valley are, at any rate during the winter months, scarcely suitable for the establishment of an industry such as would spring out of even a satisfactory source of sodium sulphate. Rarely ceasing wind blows the sand through one's clothes, and the anhydrous sulphate dust into every pore of one's skin, while plants find growth difficult under such sterilising surroundings. Then extremes of temperature, blizzards, the sandstorms, and the difficulties and expense of transport until a railway is established close to the spot, quite preclude any extensive use of such a deposit. But sooner or later what sodium sulphate is to be had will doubtless be utilised; though not until any given consumer finds it

to his financial advantage to use the natural rather than the artificial variety.

Similar remarks apply to those lakes mentioned as lying to the north-east of Casper.

The writer hopes that this paper will be regarded by industrial chemists, whether analysts, consultants, or capitalists, as a trustworthy and useful, if somewhat discursive, contribution to the subject of natural saline deposits. He only claims for it the quality of accuracy. The discursive element and the personal allusions in it are introduced to guide experts who may visit the areas mentioned, or similar areas, and to act as sidelights on an area that was offered as a centre of a chemical industry. He cannot conclude without a word of thanks to the syndicate who so liberally and with a single eye to truth encouraged him to accomplish an investigation which ten weeks of holiday in 1891 enabled him to undertake, and which, certain interests having meanwhile been adjusted, ten hours off medical duty in 1894 has enabled him to endeavour to describe.

Until such natural saline masses as those of Durbin, Casper, Laramie, and other places can locally and cheaply be rendered anhydrous, and the resulting dry and pure salt be conveyed cheaply to glass works, solidified sodium sulphate lakes will continue to be useless, if not sterilising and therefore mischievous, chemical curiosities.

TERRE-PLEIN, SUEZ, EGYPT: December 1, 1894.

APPENDIX II.

THE PROBABLE DESTRUCTION OF BACTERIA IN POLLUTED RIVER WATER BY INFUSORIA.

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[Reprinted from 'The British Medical Journal' of June 17, 1893.]

Towards the end of June 1892 Professor Dr. Emmerich, of the Hygienic Institute of the Royal University of Munich (where I was then working at advanced bacteriology), suggested that possibly infusoria had something to do with that self-purification of impure water which is well known to occur in many circumstances. With the object of investigating this matter I carried on the following series of experiments in the laboratories of the Institute:—

On July 1 two 1-litre flasks, which may be designated. A and B, were sterilised. Into each of these was introduced about 500 c.c. of water drawn from a certain disused well. This water contained an average of 10,000 bacteria per c.c., as estimated by counting the colonies on gelatine plates in the usual manner, but was almost free from infusoria. To A was added 10 c.c. of River Isar water. The latter was collected about 150 metres below the influx of one of the main Munich sewers. The Isar water contained much beggiatoa alba, and swarmed with infusoria as well as with the bacteria of the sewage. The infusoria were for the most part paramæcia aurelia and p. caudatum.

After diluting a portion of A with sterilised water, three gelatine plates were made containing respectively:—

(1) 0.008 c.c. of A. | (2) 0.016 c.c. of A. | (3) 0.024 c.c. of A.

Three plates were also made from the contents of B—that is, the well water without Isar water:—

(1) 0.010 c.c. of B. | (2) 0.020 c.c. of B. | (3) 0.050 c.c. of B.

The plates and the two flasks were then placed in the cellar of the Institute, because the temperature there resembled that of the well from which the water was drawn.

July 2.—No colonies were as yet found on the plates. The infusoria in A were observed to be in active movement. More plates were prepared from A and B.

July 4.—From the counting of the colonies on the plates prepared on July 1,

A had 259,000 bacteria per c.c. | B had 10,000 bacteria per c.c.

Additional plates were made from A and B. The plates prepared from A on July 2 showed that A had on that day an average of 364,000 bacteria per c.c.

July 5.—The plates made on July 4 had not developed sufficiently for counting the colonies. Further plates were prepared from A and B.

July 6.—The plates made from A on July 4 showed

48,500 bacteria per c.c.

July 8.—The plates made on July 5 from A showed a bacterial contents of 47,500 per c.c.; from B 5,450.

These results may be thus tabulated:-

A, 10,000 Bacteria per C.C.

Isar Water added.

July 1, per c.c. 259,000 bacteria.

3, 2, 364,000 ,

4, 4, 48,500 ,

5, 10,000 Bacteria per C.C.

No Isar Water added.

July 1, per c.c. 10,000 bacteria.

July 1, per c.c. 10,000 bacteria.

3, 5, 7, 5,450 ,

5, 7, 5,450 ,

It thus appears that in the water (A) swarming with infusoria the bacteria had decreased to less than one-fifth

of their original number in six days, whereas in the water (B) containing very few, if any, infusoria, the decrease of the bacteria in six days was only one-half of their original number.

I now made another series of experiments, using in the one case Isar water taken from above, and, in the other, from below, a point of inflow of sewage. A suggestion having been made that in the previous experiments perhaps light had something to do with the destruction of the bacteria—for a certain amount of direct sunlight had access to the cellar—in this series of experiments similarly prepared vessels were protected from light by means of appropriate covers of black cardboard.

The contents of the two bottles were kept in constant movement by blowing a slow current of air through each bottle by means of a forcing air pump, the air being filtered through plugs of sterilised cotton wool. The water used was, for A, collected 150 metres below the influx of the main Munich sewer into the Isar. It contained some beggiatoa alba and infusoria. For B, the water was collected, as I have said, from the Isar above Munich. The methods of procedure, namely, making plate cultures and counting the colonies, were carried out as in the previous series of experiments.

The figures obtained from these results may be tabulated as follows:—

A, Isar water from below Munich with a little beggiatoa alba and many paramecia.

B, Isar water from above Munich containing no apparent infusoria.

		A.						B.			
	Bacte		Bacteria per C.C.								
Plates	of July	11			637,000	Plates o	f July	11			5,900
9.9	9.9	13	•	٠	462,000	11	11	13			23,800
11		14	•	•	3,300	11	11	14			33,300
9.9	9.9	15		٠	11,000)))	11	15	•		26,500
2.9		16	٠	•	1,200	79	2.1	16			2,000

In all these cases, with one exception, the plates were counted after from 36 to 48 hours. The exception is that of the A plates dated July 15, when, owing to unavoidable absence, the counting was not done till about 72 hours after preparation; hence, perhaps, the increase noted.

Here again the proportional amount of decrease of bacteria between the water with infusoria and that without them will be observed to be very marked. In A the decrease is from 637,000 to 1,200—that is, as from 500 to 1—while in B it is from 33,300 to 2,000—that is, nearly 17 to 1.

On July 19 a fresh series of experiments was started. As before, samples of water from below Munich with infusoria and from above the town without them were collected in sterilised bottles.

In this series, however, each water, A and B, was divided into two equal portions, which may be designated as A_1 and A_2 , and B_1 and B_2 ; the two former being from below and the two latter from above Munich, as before. At the time of taking these samples the Isar was in flood, and in consequence the water was very turbid from suspended matter. Through A_1 and B_2 air was blown, while A_1 and B_2 were not so treated.

From these samples six sets of plate cultures were prepared in the course of fourteen days, and from the data thus afforded the following table is compiled:—

A,	WITH INF	USORIA.	B, without Infusoria.				
July 19	3,000,000 I	Bacteria per C.C.	July 19 700 Bacteria per C.C.				
July 21 ,, 23 ,, 25 ,, 28 Aug. 1	215,000 101,250 35,552 42,920 13,200	A ₂ without Air 567,000 ? 196,000 58,000 97,000 not counted	July 21 ,, 23 ,, 25 ,, 27 Aug. 1	B ₁ with Air 1,470,000 1,285,000 504,000 250,500 121,500	B ₂ without Air 354,900 797,550? 228,150 80,800 not counted		

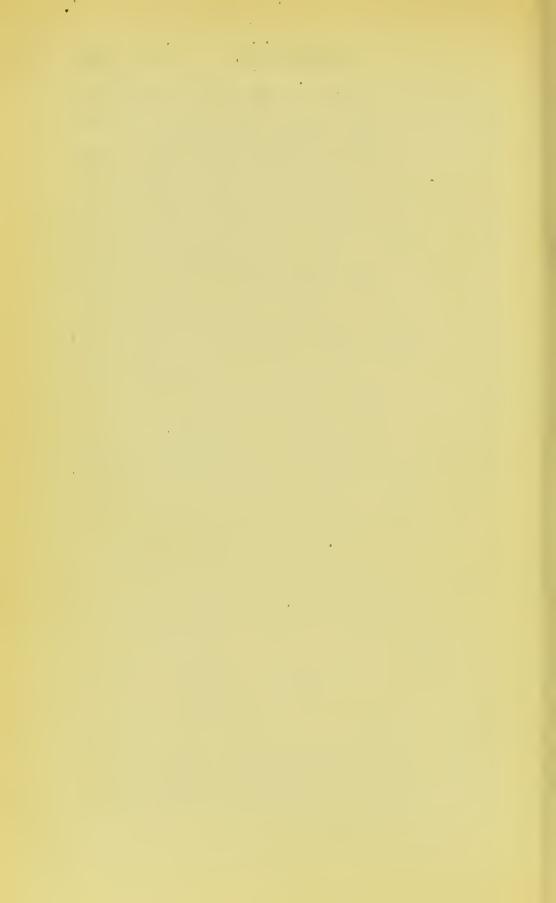
Examining this table, we find there is very little difference in the proportional decrease of bacteria, whether sterilised air be driven through the fluid or not.

Secondly, in this series some very interesting ocular evidence of the purification that was going on was noticed—namely, the water in the A bottles became quite bright and clear, while the water in the B bottles became thicker and more turbid. Professor von Pettenkofer, to whom I showed these bottles, was particularly struck by this point.

Thirdly, in this last series the presence of infusoria seemed to have a more marked effect than in the foregoing experiments. For, in ten days, a water containing 3,000,000 bacteria per cubic centimetre decreased in bacterial contents to a little over 13,000, while the water containing no infusoria not only gave no decrease in numbers, but rose in bacterial contents from 700 per c.c to 121,500 in the same time, namely ten days.

From all of these experiments it would seem that infusoria have some powerful influence in the getting rid of bacteria, and, possibly, so aiding in the 'self-purification' of water.

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